

# THE MINING CONGRESS JOURNAL

SEPTEMBER, 1918

VOL. IV

SAFETY-EFFICIENCY-CONSERVATION

No. 9



WILLIAM WALLACE MEIN

Internationally known mining man who is in charge of fertilizer control for the Department of Agriculture. His salary is \$1 annually.

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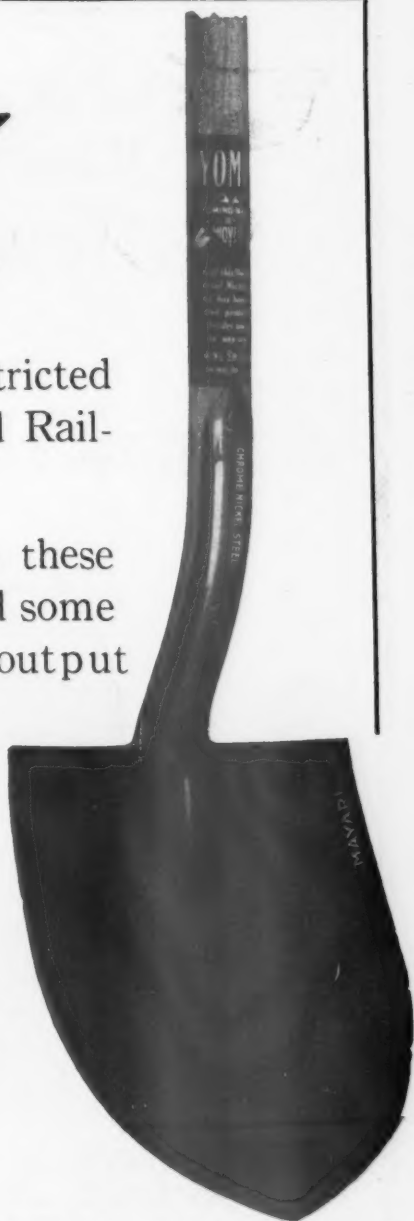
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SEPTEMBER

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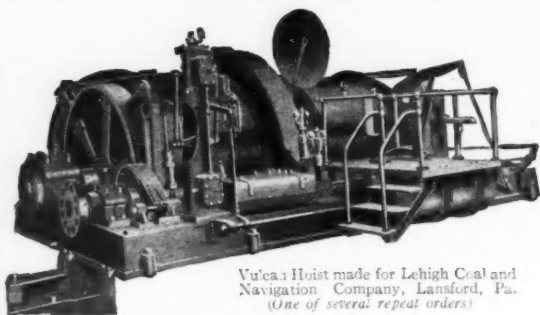
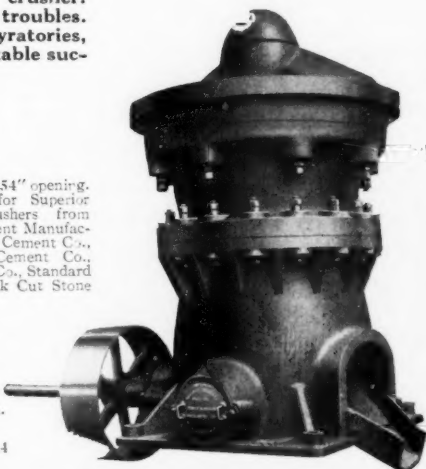
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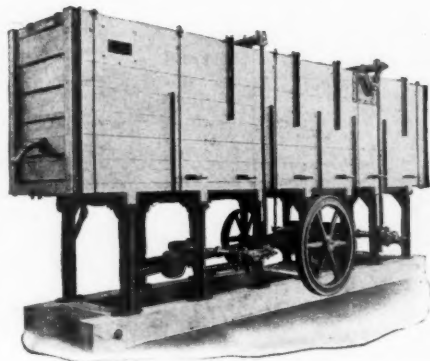
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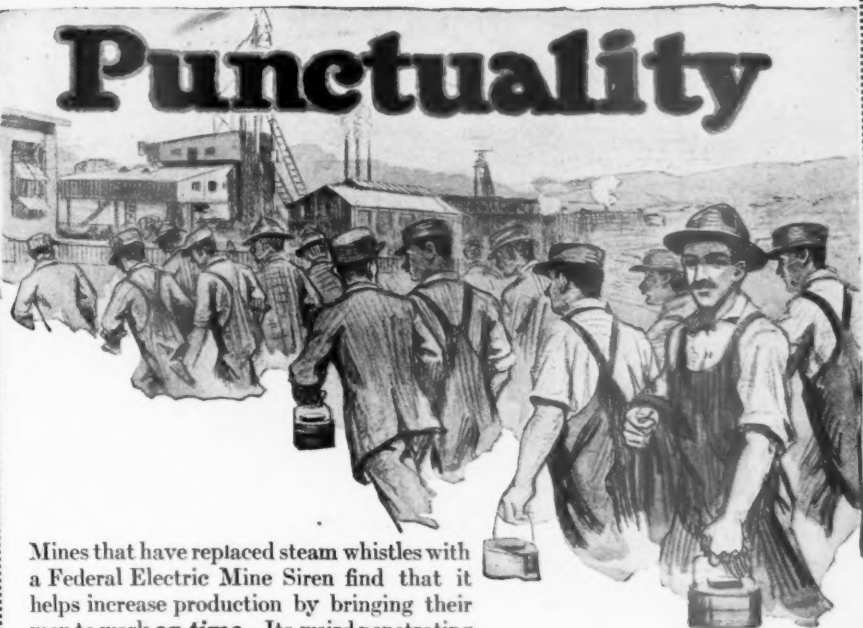
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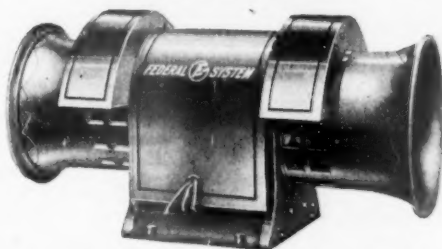
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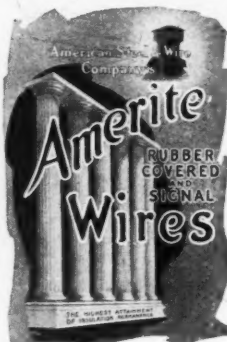
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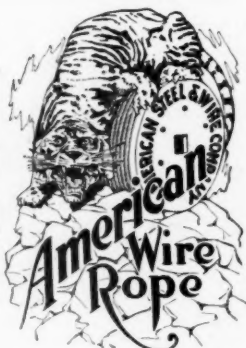
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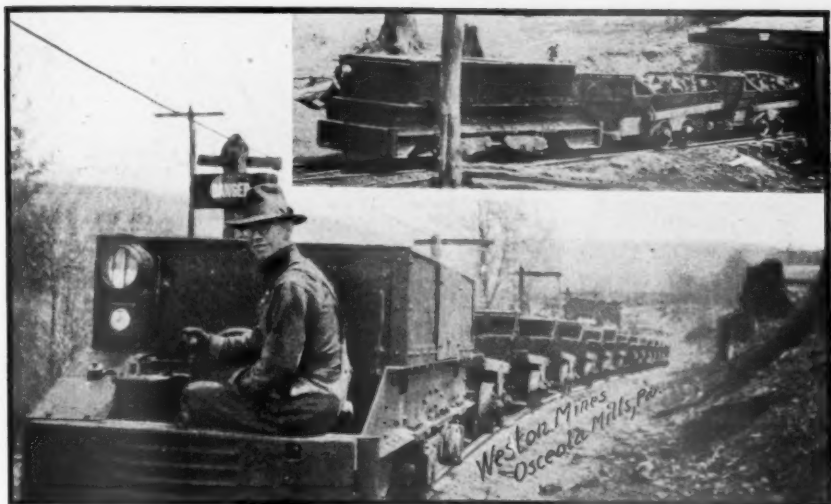
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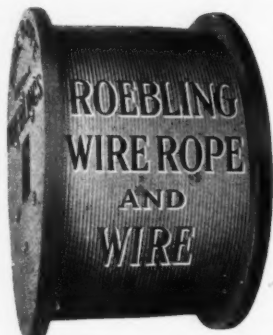
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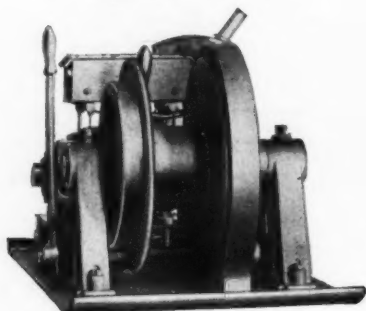
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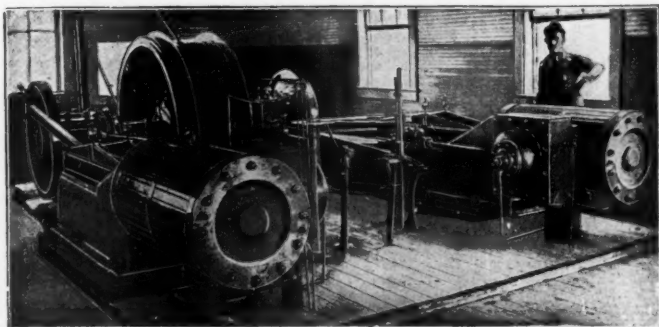
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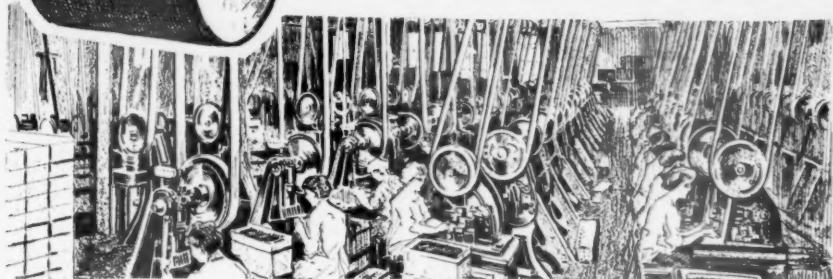
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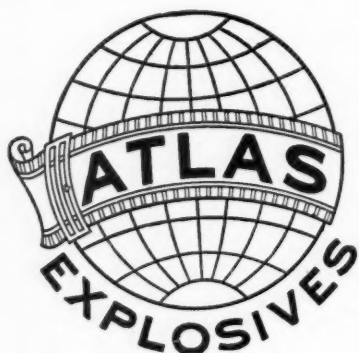
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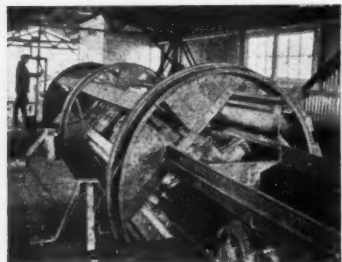
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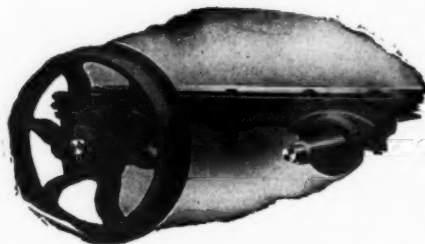
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# THE MINING CONGRESS JOURNAL

*Official Organ of the American Mining Congress*

## ANNOUNCEMENT

Every effort of the mining industry is bent toward the accomplishment of the great task of civilization—the suppression of militarism and the perpetuation of democracy in the world.

All of the machinery of transportation and exchange having its initiation in mineral production is being worked to its utmost. This situation has led to the determination by the American Mining Congress not to add to these burdens by holding a convention during the present year. Notwithstanding the present strenuous conditions, an intense interest prevails concerning the business conditions in the after war period when the Government shall cease its present war expenditure of approximately fifteen billions of dollars annually; when ten million men shall turn from war and war preparations to normal industrial pursuits; when the present high prices shall seek normal levels and when the country must set itself at work to rehabilitate its production and transportation machinery and to earn the funds with which to pay the vast accumulation of debt contracted for war service.

Instead of a convention it has been decided to hold the annual meeting of directors and members either in Chicago, New York or Washington early in December. It is believed that by that time the war will be so well along that deliberate consideration can be given to the after war problems of the mining industry. War conditions have brought many changes. Shall these be continued or are we to go back to the good of the old system and to what extent shall we

eliminate the bad and how shall it be done?

All these problems connect themselves closely with the wage problem and the price problem. Prices must come down, but how far can wages remain at high levels which all desire and the price of the necessities which the laborer consumes be reduced?

Can the railroads continue to pay high wages and yet give reasonably cheap transportation facilities to the public? Is there brains enough in the nation to solve these problems without a panic? If a panic is the only way, and such is the belief of many wise men, how will you adjust your industry to best stand the shock?

As there will be no convention to discuss these problems, the American Mining Congress proposes to prepare a compendium of discussion of this subject as it relates to the mining industry in a special reconstruction number of THE MINING CONGRESS JOURNAL to be issued early in December. It proposes to make this discussion concise, yet complete, and to bring to it the best thought of the men who have given most attention to these problems. To defray the extra expense of the edition and to catalogue the business firms of foresight and public spirit, the friends of the movement will be asked to subscribe for space in which the personal story of their business appeal to the public may be told.

Surely there is brains enough in the country to prevent the suffering and want and disorganization which must follow a panic. Surely the effective intelligence of the country can steer the

business craft through the inevitable rapids of after-war reorganization and prevent it from being foundered on rocks plainly in view.

The reconstruction number of THE MINING CONGRESS JOURNAL will undertake to marshal and concentrate the best public foresight and to so direct public effort that continuously employed production machinery may at all times provide liberal wages to all employees, fair profits to all operators, and to the consumers the cheapest supplies possible consistent with liberal wages and fair profits.

#### NEW DRAFT LAW

#### AND THE MINES

The danger to industrial America through the working out of the new draft law has caused the Government to awaken to the necessity for very intelligent cooperation with employers, in order that disaster may be avoided and loss in production of raw materials minimized.

Especially is there recognition of the danger to the mining industry, and when officers of The American Mining Congress brought the matter directly to the attention of Provost Marshal General Crowder, prompt assurance was given that every effort would be made to prevent loss of man power in the mines. "Every man who can be spared to carry on war work must be used for the army," the General said, "but we are endeavoring to prevent anything happening to the industries upon which we depend for war materials or for the safety and comfort of our men." The attitude of Colonel Conkling, in charge of problems connected with the production of coal, was the same.

The Administration, through its civic departments, is cooperating closely with General Crowder in working out the necessary protective measures. The now thoroughly organized employment service, sub department of the Department of Labor, has been granted certain powers of control over unskilled labor, even to the extent of forcible allocation, if necessary, to war work. The Labor Policies Board, in charge of Felix Frankfurter as

chairman, has materially strengthened its work through the organization of a "man-power committee," at the head of which is Charles Neave, well known as an attorney of high standing in New York, and who is working very closely with the War Department in establishing the machinery which not only administers the draft, but is being called upon to work out the man-power problems in industrial centers. Mr. Neave reiterated the statements of General Crowder and his assistants—that no weakening of man power would be allowed in mines, "though employers must give this matter immediate attention and assist us to understand their needs," he said. He then outlined the organization of the draft machinery and requested the cooperation of The American Mining Congress in getting the plans of his committee promptly before the mining operators.

A new element was brought into the situation through the organization of a "labor committee" in the Bureau of Mines, with J. E. Spurr, chairman of the board, in charge of War Minerals Investigations as chairman. All of the forces, though working separately and from different angles, will coordinate their information to insure the most satisfactory results. Long before the rules were promulgated and while the draft bill was still in debate, The American Mining Congress gave the detailed information to its members and affiliated bodies and began the work of organizing the operators along protective lines.

Incidental cases of injustice may be discovered where district boards may fail in giving consideration to the statements of employers, but THE MINING CONGRESS JOURNAL believes that these cases will be the exception and that Chairman Neave of the man-power committee will be able to invoke proper action on the part of the War Department. Already there have been reported to The American Mining Congress certain cases where serious results will follow the withdrawal of certain men, but these cases are in the hands of the proper officials for investigation.

The Mining Congress appealed to every operator *not* to handle his labor draft problems in a perfunctory manner,

but to be able to place individual statements covering every "key" man in each mine or business department of mining companies directly in the hands of district boards. The request means a great deal of work for corporations employing hundreds and in some cases thousands of men, but before the draft machinery began work many of these corporations were listing the information desired. It is a case of man power for army and industry and the man power is as important for one as for the other. General Crowder intends to man the army, and if employers desire to retain the pivotal forces in their producing departments it is up to them to cooperate with proof of the necessity for retaining every important trained and efficient man and further—to furnish proof of his efficiency.

THE MINING CONGRESS JOURNAL believes that a liberal measure of praise is due to the administrative officers who have endeavored to work out this most remarkable program by which every man will be made to do his bit. We also desire to add a word of praise for the excellent manner in which the Adjutant General has worked out a system of "furloughs" whereby errors, when recognized, can be rectified promptly. This newly established order of the War Department has already returned several thousands of ship builders and munitions workers to their labors—it being invoked first in this department of war energy. A few weeks ago it became effective in the coal mines and thousands of operatives have returned to the mines. In the first week of September the system was extended to metalliferous mines and Director Manning has been made certifying officer to pass upon individual furlough claims. Its working is simple but efficient. When it is found that a man, necessary to the strengthening of war production has, through inadvertence or even through his own expressed desire, been placed in the army, a careful investigation of the circumstances is made. The man is appealed to by the War Department to fulfill the part of a patriot and return to the shop, mine, shipyard or office whence he was taken. He is allowed to draw civilian pay and

have civilian privileges, but he remains a soldier and wears his uniform and is in fact a member of the army reserve and recognized as such.

It is an expensive system, individual cases costing as much as one hundred and fifty dollars, but it is the one existing method by which interference with production may be prevented.

America does not intend to repeat the costly error by which England was obliged to return 25,000 of her skilled miners and laborers from the trenches to re-man her industries. The newly organized and coordinated machinery, although attempting a task of almost superhuman magnitude, will, no doubt, if proper cooperation is granted upon the part of employers, work satisfactorily except in the rare instances where abuses may be attempted.

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#### MINING AND METALLURGICAL RESERVE

Regardless of the plans already announced for the protection of mining under the new draft law, THE MINING CONGRESS JOURNAL takes the liberty of commenting upon a plan proposed by Director Manning and his associates of the Bureau of Mines, and insists that the plan should receive immediate and favorable consideration from the war administration.

While every effort will be made to prevent loss of man power in the mines, there will be some loss. It cannot be wholly prevented by the methods already devised. A number of technical men occupying positions of highest importance are liable to enlist or be drafted. They may be placed in obscure positions where their technical training will be of no particular value. The loss of technical men in the mining industry is a serious matter at any time, and much more serious at a time when every skilled brain should be employed in bringing production to maximum.

The problem cannot be solved merely by exempting men because, regardless of the expressed preferences of the Government, hundreds of these men will refuse exemption and will insist upon joining the fighting forces. The suggestion

of the Bureau of Mines officials—a most excellent one from every standpoint—is that there be organized a Mining and Metallurgical Officers' Reserve Corps made up in part of volunteers and in part of qualified men now of draft age, and that they be directed to work where they will be most efficient. This will mean, in the majority of cases, their present employments.

With this Reserve Corps under control of the War Administration, the technical forces represented can be moved when and where necessary, the trained intellects utilized to maximum advantage to the industry and to the Government, and it is not beyond the realm of possibilities that such a body of men will be badly needed for the rehabilitation of Russian mines and to open to the world the vast mineral resources of Siberia.

The scheme as already placed before the Administration includes the appointment of a special representative of the mining industry on each district draft board with advisory power in selection of the "key men" of the industry, for the proposed reserve service. All men selected for the reserve were to be assigned to remain in civic occupations until called for special duty in the army.

The plan is a good one. It did not originate in the army and it was promptly rejected. But this war is not going to be won by allowing the military spirit to override common business sense, and THE MINING CONGRESS JOURNAL suggests that the splendid business men of the nation who have dropped their private affairs to assist in working out the enlarged military program give serious attention to the thought advanced by the men responsible for much of the progress now being made in the production of our war minerals.

#### ORGANIZATION IS SALVATION

An editorial quoted from the Daily Mining and Financial Record of Denver, puts squarely up to the nation a problem which must be worked out upon intelligent business lines. The startling facts concerning both white and yellow metals have been developed so recently that few, even of the financial writers in America,

seem to have grasped the cold, hard reality of the situation.

The American Mining Congress has labored consistently to establish a belief on the part of mining operators in the necessity for a national bureau of mining economics. Such a bureau would have been in position to have warned the nation—both producer and lawmaker—long ago of the pending condition. Such a bureau is proposed by this organization and will some day assist the mining industry to maintain a profit-making level through an actual knowledge of facts necessary to intelligent investment of capital and energy.

The recent organization of The American Gold Conference through the combined effort of Gov. Emmet D. Boyle, of Nevada, and The American Mining Congress is the result of the realization forced upon producers that radical readjustment of mining conditions must come quickly to prevent undue and possibly disastrous decrease in available gold. The facts and argument given by the writer quoted below show that the timely warning sounded by THE MINING CONGRESS JOURNAL was based upon a *real* and not upon a theoretical condition:

"The statement is often made that 'there is more gold and silver in the ground waiting to be mined in the future than has ever been mined from the beginning of time to date.' No mining man doubts this statement, but all of them recognize the fact that the ore that remains to be mined is of far lower grade than that which has been mined, and that if it is ever to be mined, it will have to be worth more per ounce than it ever has been yet.

"It is time for the people of the West to face facts. The big gold and silver mines, capable of producing these metals in quantity at a low cost, are worked out. There are no great bonanza camps left from which to get cheap gold and silver. It costs more today to produce gold or silver than ever before, and unless it is made a more profitable business these low-grade leftover deposits will not be worked.

"In 1893 there were such camps as Aspen, Rico, Creede, Silverton, Ouray, Leadville and the camps of Clear Creek and Boulder counties, which contained numerous mines yielding ore that carried from 200 to 1,500 ounces of silver per ton, and a strike of an ore body running 400 to 500 ounces of silver per ton was not considered a startling matter and caused only passing comment.

"Today in these same camps fifty-ounce silver ore is considered high grade and the lucky finder of it is more envied and gets more notoriety in the local papers than an old-time miner got when he discovered a new mine carrying 1,000-ounce ore. A discovery of 500-ounce ore in any of the mines in these camps is a sensation. There is not a single mine in any of these camps producing 200-ounce ore in anything like the quantity that any one of the numerous and famous old producers turned out before 1893. *And there never will be.*

"But no one who knows mining will doubt doubt for a moment but that there is more silver and gold in the mines of these camps than has ever been taken out. It is there because it does not pay to mine it at the present price per ounce of these metals, and there it will remain until it does pay. A great deal of this ore will pay with gold at \$30 per ounce and silver at \$1.30 an ounce. With these prices for the gold and silver produced from now on, the West can produce the metal needed and mining be made one of our important industries again. Without them it will rapidly cease to exist.

"It is highly possible that there are in the West undiscovered camps as good as any that have been found heretofore, but we must admit the fact that efforts to locate them have been unsuccessful to date, and that even if another Aspen, Creede or Rico is found, the total amount of gold and silver they will produce will be but a drop in the bucket to what is so badly needed now. It will take a dozen camps like Creede, Aspen or Rico to furnish the silver needed. Ten Cripple Creeks would not supply us with more than \$3,000,000,000 worth of gold, and this amount will not go far toward putting old gold reserve back to the point where it would represent 35 per cent of the world's bonded indebtedness. The chances of finding this number of new camps are nil. The chances of finding even one more Cripple Creek are extremely small, so that our future gold and silver supply must come from the low-grade leftover deposits, and silver and gold must be made worth more per ounce.

"Fifty dollars for gold and \$2 an ounce for silver will not put a single ounce of these metals into the ground nor increase the quantity that nature has stored in the earth. A new crop of rich gold and silver mines, such as the West has known in the past, will never be opened up. Our future supplies of the metals must come from the extremely low-grade ore, now too poor to work, and possibly from a few scattering new camps to be found, if possible.

"The miner must have an increased price for these metals or go out of business. An increase of price in gold of \$10 an ounce will barely cover the increased cost of labor and supplies which the miner buys. It is an increase of but 50 per cent, whereas

in many camps it is a fact that the gold miner is faced by an increased cost of 100 per cent for labor and supplies.

"The miner is not alone concerned in this. Everybody directly or indirectly connected with the mining business will feel the effect, if the gold and silver mines are forced to close. Thousands of stockholders in mining companies, every business which furnishes supplies directly or indirectly to people interested in gold and silver mines, will be affected.

"Unless the supply of gold and silver is increased, our credit will rest on pure paper. The cost of living will advance faster than ever before and it will take a bushel of paper money to buy a bushel of wheat.

"The combined strength of every man in the West must be placed back of the various metal mining associations, institutes and The American Mining Congress, regardless of whether he is directly interested in the mining business or not."

## THE COAL SITUATION

The coal question is largely a matter of figures. That is, Italy produces no coal and turned to England to get it. France produced, in normal times, less than she used. Then she lost part of her mines and turned to England to get the balance. Those countries which produced food for England needed coal to carry their food to tidewater and, naturally, turned to England to get it.

Then England, making the identical mistake that America is now duplicating with so much sagacity, drafted her coal miners into the army and began to lose coal production at the very moment when the call upon her was the greatest.

England, having no other place to go, has turned to America for coal. We must produce it or the world is going to run short.

It becomes, then, a simple matter of figures to tell what the coal situation really is. Those figures concern themselves with: How much does the world need? How much is America producing? What is the difference? That difference between supply and demand will tell the coal situation better than could be done in a volume.

We have not the complete coal budget of the world. Neither have we a dependable record of American supply because it is going up sharply one week



and falling precipitately the next. However, we can come pretty close to it.

The American budget calls for about 2,400,000 tons a day of all kinds of coal—anthracite and bituminous combined. The production of bituminous has twice been up to 2,100,000 tons a day and the production of anthracite is pretty steadily at better than 300,000,000 tons a day. Therefore, on two occasions the daily production of coal has equaled the budget. Most of the time we have fallen short of the American budget alone. We have a sizable deficit of coal staring us in the face—unless it happens that the budget figures are wrong.

This takes no account whatever of the foreign demand. This will measure easily 300,000 tons a day. Some of it will go to Europe direct. Other tonnages will go to South America to move the crops to save us the annoyance of having to supply much larger quantities of food.

So, at our best, we are short by 300,000 tons a day of meeting the demand upon us for coal. Those are the figures. They are ugly. But balance sheets, which show in red, are never pleasant sights. We must look at this one squarely because it may mean that we will have to default in some of our serious war obligations—obligations to supply material to men who are fighting at the front.

#### WHO IS TO BLAME?

Before war was declared with Germany, efficiency was required in the management of every commercial enterprise in America. From the office boy in the administrative department of a commercial house or factory to the president of a railroad, it was a recognized and well-established condition of employment that business efficiency—getting results for the corporation, was required.

Maximum profits at minimum costs were demanded, but in both corporate and public service it was well established that maximum results came only when there was complete cooperation between employer, employed and public. The

public furnished the motive for production, the employee the skill and brawn and the employer the dynamic energy—the capital upon which the enterprise depended to meet the demands for production. It was an ideal partnership. It made for friendliness in commercial exchange and encouraged employer and employee to consider service a pleasurable duty, and cooperation a necessity.

It would not be stating a truth to say that there were no exceptions to this rule or to claim that improvements were not possible, but generally speaking the business institution which was successfully managed its affairs upon that basis. It was expressed tersely as "good business practice" and had become national habit.

This was before the war.

Today the "business efficiency expert" seems to have been forgotten. We are told—if we call attention to some glaring example of inefficiency or lack of the old cooperative spirit, that we have but one business before us—the winning of the war. The great work of military preparation is uppermost in most minds, but by some it is seized upon as an excuse for inconsiderate treatment of the public, for forcing new and most onerous conditions of labor, for *abuses in public and semi-public service which at other times would not be tolerated*, for discourtesy on the part of employees, for lack of courtesy to the public and—we fear—for what has almost become a great national grouch.

This indictment is couched in rather general terms and has no specific application to the thousands of employers or employed who just naturally feel that in time of stress there should be a closer union of interests between men, though one has but to keep eyes and ears open wherever business or public activities are carried on, to prove the indictment in hundreds of specific, individual cases.

The offense takes on various forms, from the profiteer who attempts to extract the last dollar or penny from the public for the least possible return in goods or service and the ticket clerk in the railroad office who answers pros-



pective travellers with an uninterested or possibly impudent air, down to the least of unskilled employees. It includes not alone the man who palms off smaller portions of inferior goods at profiteering prices but the makers of legislation who unthinkingly oppress business and suppress production through unfair and inconsiderate law making. It includes the men who have been "gouging" the Government through delivery of inferior goods and the laborer who gives as little as possible in lieu of the maximum which old-time business conditions demanded.

If, in destroying the Hun and his hellish designs upon civilization and decency, we also create for ourselves a national disintegration of commercial spirit, wipe out business courtesy and win the war only to find that the labor or the financial profiteer or "pirate" is a dominating factor, then indeed will our victory have been a costly one, not alone in treasure and blood but in the loss of a phase of Americanism which has made for national unity and happiness.

#### WHY NOT FIND THE REASON?

From time to time the newspapers, probably basing their statements upon government reports, warn the public that the labor shortage in the mines cannot but result in a great coal shortage this coming winter. In at least one district, within recent weeks, the failure to market the proper amount of coal led the Provost Marshal's office to investigate statements that miners were leaving their work in such numbers that drastic methods would be necessary to prevent miners from entering the army.

It is admittedly true that there is a labor shortage. But it is as true that lack of system in transportation of coal when it is removed from the mines is another grave cause of danger.

It must be admitted that rolling stock, including locomotives, has been transported to the European battlefields lessening the traction possibilities and causing a readjustment of train movements, but it is certain that some method can be worked out whereby the maximum movement can be assured. In one district, the Clarksburg (W. Va.) field,

large mining properties have been closed down as long as three days out of seven within recent weeks because of a glut of loaded cars and lack of engine power. Many miners have left these properties to go where they thought they could find continuous service. The fuel commissioner of the district has taken the matter before the Fuel Administration. His investigations have shown what, to the public and operators, appears to be lack of management in handling the traction situation. Investigation by operators appears to establish the fact that loaded coal cars often travel less than 100 miles in a week; that splendid, monster locomotives are only driven 100 miles in a day when mechanical experts assert that such machines should be made to pull loads for sixteen hours out of every twenty-four.

If a privately owned enterprise failed to produce 100 per cent results in time of peace the stockholders would demand to know the reason and to have a change in method or management. In these times, when men are giving their lives and both men and women are straining every nerve to keep things moving at high speed, it would seem that there is every reason to demand highest efficiency from the railroads upon which every phase of civil and military life depends for fuel—the life of industry. If there is inefficiency in management anywhere, if theories or rules of labor unions, or politics stand in the way, there should be no mincing of words. The simple statement that the war has created conditions which are difficult to meet is not enough. The surest way to win the war is to develop such efficient management of our internal commerce that the army and navy will be backed up by a nation which is sure of itself—because it is efficient.

#### THE ZINC "PROFITEER"

One of the most interesting statements yet placed before the War Industries Board was that filed and discussed by the committee of Joplin-Miami zinc producers which attended the recent meeting of the price-fixing committee.

THE MINING CONGRESS JOURNAL is permitted to give publicity to this detailed statement, which indicates the exact status of the zinc industry in these trying times and shows that under the existing agreement between the smelters and producers the margin of profits is dangerously small.

We give the brief and tables of costs in detail and feel impelled to remark that, had there been in existence a bureau of economics which could have given similarly complete statements to the war administration and the excess profits tax committee at the proper hour, there would have been less opportunity for the administration to mismeasure the load possible for the mining industry to carry in the distribution of the war burden.

The statement, signed by the committee, follows:

War Industries Board,  
Washington, D. C.

Gentlemen:

In May, 1918, the high-grade ore producers submitted a brief before this board showing the cost of producing zinc concentrates in the Joplin district to be \$58.37 per ton, made up as follows:

Operating cost per ton concentrates.....	\$40.00
Depreciation and depletion.....	10.00
Royalty per ton concentrates, based on average price of \$57.12 at 15% royalty .....	8.37

Total cost.....\$58.37

Since May, 1918, our operating costs have increased approximately 10 per cent, bringing the cost per ton of concentrates to \$63. (Table showing increase in various items in operating expenses is attached hereto.) Statement showing details of production cost are as follows:

Operating cost .....	\$44.00
Depreciation and depletion.....	10.00
Royalty per ton concentrates, based on average price of \$60.08, at 15% royalty .....	9.00

Total cost.....\$63.00

The high-grade producers sold 45% of their production to sheet zinc manufacturers at \$75. The balance was sold at the average low grade market, which made the average price received for all grades of zinc concentrates sold by high-grade producers from May 18 to August 17, \$60.08.

The depreciation and depletion charge of \$10 per ton concentrates used in this statement is insufficient. The present acute labor shortage results in such inefficiency

that operators find it necessary to draw on their best ore to avoid serious loss. This will shorten life of mines very materially and charge for depletion should be increased to compensate for same. Development of new ore reserves is almost wholly neglected. Until the unfavorable conditions above mentioned have been relieved it is probable that the maximum production has already been reached.

Respectfully submitted,

High-grade Ore Producers  
Joplin District—

P. B. Butler.  
J. W. Hoffman.  
H. I. Young.  
C. F. Dike.  
D. C. Corner.

Relative percentage of total mining cost as of May, 1918, and per cent increase between May and August, 1918.

Item.	Percentage of Operating Cost.	Per Cent Increase from May, 1918, to August, 1918.	Actual Increase.
Power .....	15	10	1.5%
Labor .....	55	10	5.5
Explosives .....	15	5	.75
Drill repairs .....	2	10	.20
Hard iron .....	5	5	.25
Belting .....	1	10	.10
Misc. supplies ..	7	15	1.05
	100	...	10.35%
Net increase in costs.....			10.35%

Cost per ton concentrates, May, 1918..	\$40.00
10% increase .....	4.00

Cost per ton concentrates, August, 1918	\$44.00
Depreciation and depletion.....	10.00
Royalty per ton concentrates, based on average price of \$60.08 at 15%....	9.00

Total cost.....\$63.00

#### Lamp Substitution to Save Coal

The United States Fuel Administration, in connection with the manufacturers and dealers in incandescent electric lamps, has worked out a detailed plan for eliminating the inefficient types. The lamp manufacturers, at a meeting held in Washington, voluntarily agreed to abandon the manufacture of certain types of the inefficient carbon filament lamp, in accordance with the program which practically calls for the discontinuance of their manufacture and sale.

## SEN. HENDERSON REWRITES THE WAR MINERALS BILL

**Measure Goes to Senate Minus Minimum  
Price Principle and Other Features—  
Carries \$50,000,000 Appropriation.**

Senator Henderson, of Nevada, chairman of the Committee on Mines and Mining, reported the War Minerals bill to the Senate on September 5. His report to that body is as follows:

The Committee on Mines and Mining after consideration of the bill (H.R.11259) unanimously directs the chairman to report the same favorably, as amended.

Extensive hearings were held by the House Committee on Mines and Mining, and a most comprehensive report submitted by its chairman, both of which were carefully weighed by your committee.

As is so often the case, however, the passage of the bill in the House brought it to the attention of many who had theretofore shown no appreciable interest, and resulted in a flood of suggestions, additional information, and protests, directed to the bill as it came from the House.

The Senate Committee, therefore deemed it advisable to hold further hearings and allow those interested to express their views, and also investigate the further suggestions and new information which the publicity surrounding the passage of the bill had caused to be placed before its members.

These hearings developed many new facts, and in view of these several changes were adopted, which necessitated the practical rewriting of the bill.

The minimum price principle had the approval of the House, but the attention of your committee was called to the possibility of the Government thereby incurring onerous obligations which might be avoided by an elaboration of the contract principle approved by the House, thus lessening the Government's liability. By the contract system, the Government would know definitely just what the obligation would be, whereas the minimum price feature might so stimulate production as to place it in a most embarrassing position.

The adoption of the contract system places the Government in the position of buyer and seller, necessitating an increase in the appropriation from \$10,000,000 to \$50,000,000. This, however, is a revolving fund, and should be returned to the Treasury through the various transactions when the purpose of the bill shall be fulfilled.

In the course of the hearings considerable

opposition was expressed to the licensing feature, and it does not appear that this is essential to the successful operation of the legislation, and its withdrawal will render the measure more acceptable to the mining industry.

Many penalty provisions were contained in the House bill, but it is felt that this is sufficiently taken care of in Section 4 of the amended bill under the President's power to establish rules and regulations, and providing a penalty for failure to comply therewith.

The importance of legislation dealing with the necessities named in the House bill is fully recognized by the Senate Committee, and none of these are disturbed. "Sodium," however, was inserted in lieu of "sea salt," which would be included by the former. This is a more comprehensive term, and was recommended by members of Government agencies interested in the supply of chemicals for the requirements of the United States. The Senate Committee also added "phosphorus," on account of the increased demand due to its utilization in various phases of war preparation, such as the smoke screen, steel manufacture, etc.

The importance of legislation affecting the subject matter of this bill is set forth in the report of the House Committee, Report No. 493. Emphasis is added by a letter of Secretary of the Interior Lane, and by Chairman Baruch of the War Industries Board.

## BOARD ON METALLURGICAL MATTERS IS APPOINTED

In order to assure the more complete coordination of the various ordnance departmental activities along metallurgical lines, it has been decided to establish a Board on Metallurgical Matters. The appointment of this board will also assure the complete coordination of similar activities of the different divisions of the War Department and the War Industries Board.

The personnel of the board is as follows: Dr. G. W. Sargent, Engineering Division, chairman; Lieut. Col. W. P. Barba, Production Division; Maj. A. E. White, Inspection Division, representing the Ordnance Department; Lieut. Col. F. B. Richards, of the office of the Assistant Secretary of War; Mr. L. L. Summers, representing the War Industries Board, and Mr. William H. Smith, representing the manufacturers.

The board will act not only for the various sections of the Ordnance Department, but also in connection with the manufacturers working for and with the department in the production of war material, and will gather the most recent and complete information on all metallurgical products.

## REVENUE BILL CARRIES OVER \$8,000,000,000

### Big Tax Measure Finally Introduced in the House—Bill Draws Fire of Senator Smoot.

The new revenue bill, which is expected to raise \$8,182,492,000, was introduced in the House of Representatives on September 3. The Ways and Means Committee had a long struggle with the bill and some portions of the bill will be opposed on the floor of the House by members of the committee. The committee declined to embrace all the suggestions of the Secretary of the Treasury. Chairman Kitchen insisted on the maintenance of his idea of excess profits. The following published criticism of the bill appears to find much favor:

"A party in power may well view with some apprehension the approach of a national election of legislators following closely upon the enactment of the largest measure of taxation in history. The authors of this measure have attempted to confine the incidence of the taxes to small classes of contributors. For this reason corporation and large individual incomes and beverages are made to bear the greater part of the burden. Consumption taxes, the levy upon the breakfast table and upon the purchases of the great mass of people, have been studiously avoided. Yet it would have been just to call upon the mass of people to contribute in proportion to their expenditures, and therefore in proportion to their means, to bear a due share of the costs of the war of which the benefits will accrue to them in the same measure that they accrue to the persons who will be reached by this revenue enactment. For some reason which has never been made clear to the public, too, stamp taxes upon bank checks have been omitted from the bill.

"The members of the committee appear to have disregarded the danger that in taking billions from the income of individuals and corporations they are diminishing the fund from which subscriptions and payments for war bonds must come. They have trusted to patriotism, to the willingness of the people, no matter at what sacrifice, to make each bond issue successful, or they have trusted to pure luck in that respect, while carrying out their purpose to leave the great mass of voters free from imposts which might affect their political opinions and actions.

"The bill unanimously reported from the committee to the House is only a project of law; it must undergo the revision of the Senate Committee and of the Senate itself. Changes will be made, but the

country should not entertain the belief that they will be important, or materially alter the nature of the bill or the principles upon which it was based. The time is too short. The appeal for subscriptions to the Fourth Liberty Loan is but a little more than three weeks away, and it is in every way desirable that the revenue measure should be out of the way before that subscription is opened."

Senator Smoot refers to the bill as a "mess of absurdities."

Senator Smoot took particular exception to the alternative scheme of excess and war profits taxation proposed by the committee. He pronounced this "a penalty upon the nation's productivity," and declared it would be ruinous to industries vitally necessary to the prosecution of the war.

Senator Smoot asserted a close examination of the bill showed that it was framed "to hit as few voters as possible." He scored the committee for failing to levy consumption taxes and urged the adoption of a gross sales tax of about one per cent, which he said would yield \$1,000,000,000 annually.

A very hurried examination of the new Revenue bill (H.R.12863) reveals changes which will be of special interest to mining men. This synopsis is not complete but will aid our readers in reaching a fair conclusion concerning its provisions:

Section 201. With reference to determining gain or loss from sale of property, an additional provision is inserted providing that if the property were acquired after March 1, 1913, "the cost thereof or the inventory value" shall be the basis, and section 202 following provides the conditions under which inventories shall be taken. This provision is somewhat obscure and a construction by the Department by way of a ruling will likely be necessary to determine the meaning of it.

Section 210. The normal income tax against individuals is changed from 2 per cent to 12 per cent, with a proviso that the first \$4,000 above the credits shall be taxed at 6 per cent.

Section 211. Levies a surtax upon net incomes above \$5,000, ranging from 2 per cent to 65 per cent of incomes in excess of \$5,000,000.

The definition of income is substantially the same as in the present law.

Section 214. Pertains to deductions, paragraph 10 thereof making a material change in the depletion allowance for oil and gas wells and mines. This allowance is not limited to "the market value in the mine of the product thereof," as in the old law, but gives the power to the Secretary to fix a reasonable allowance, according to the peculiar conditions in each case, and the law extends this privilege to the owners of leases as well as the owners of fee.

Section 218. Provides that individual partners shall be liable for income tax for their

proportionate part of the firm's earnings, whether distributed or not.

Section 230. Is the income tax on corporate earnings. This is a tax of 18 per cent upon the net income in excess of all credits, but providing that the rate shall be only 12 per cent upon all earnings distributed as dividends, and also 12 per cent on the amounts paid during the taxable year of the earnings in the discharge of interest-bearing obligations outstanding at the beginning of the year.

#### EXCESS AND WAR PROFITS

Section 301. Provides for the levying of an *excess profits tax* or a *war profits tax*, which ever will produce the higher tax, against the net earnings of all corporations, and the bill has defined corporations to mean "associations, joint stock companies and insurance companies as well as private corporations." This appears to be an important difference between the purported bill and the present existing law in that there appears to be no attempt to impose an excess profits or war profits tax upon the business of individuals and copartnerships. (The existing law [section 201] includes the individual and copartnerships.)

Section 302. Provides that where the invested capital is not more than \$25,000 the tax to be imposed shall not exceed 35 per cent of the net income in excess of \$3,000, and that if the invested capital is more than \$25,000, but not more than \$50,000, the tax shall not exceed 40 per cent of the net income. However, this limitation does not apply where the net income of such corporations is more than \$50,000.

Section 303. Is an innovation providing that a corporation "the earnings of which are to be ascribed primarily to the activities of the principal owners or stockholders who are themselves regularly engaged in the active conduct of the affairs of the corporation and in which capital is not directly or indirectly a material income-producing factor," in lieu of the war profits and excess profits tax, shall pay a tax of 20 per cent of the net income in excess of \$3,000. There is limitations, however, on this where the income or 50 per cent of it consists of gains derived from government contracts, or where the invested capital is more than \$100,000, and in these cases this provision will not apply, but the general tax provision will be applicable. It appears that this section will include the case of prospectors in mining and oil where capital is not a material producing factor.

Sections 310, 311 and 312 are new and providing for war profits which allows the average actual pre-war earnings for the years of 1911, 1912 and 1913 as a deduction plus 10 per cent on any new capital introduced into the business since the pre-war period or less 10 per cent on any capital withdrawn from the business since that time. The difference between this deduction and the total net earnings for the taxable year shall bear a flat tax of 80 per cent known as the war profits tax. If the

corporation was not in existence during such years the deduction will be \$3,000 plus 10 per cent of the invested capital for the taxable year. This would seem to be very unfair to a new corporation, and especially to mining companies operating where the life of the individual mine is short and uncertain.

Section 315. This is the excess profits provision providing for an arbitrary allowance of 8 per cent upon invested capital plus \$3,000, and a tax of 35 per cent upon the income in excess of the credit and not in excess of 15 per cent of invested capital, a tax of 50 per cent between 15 and 20 per cent of such capital, and a tax of 70 per cent on net income in excess of 20 per cent of the capital. A new provision of this section allows greater privilege in taking full credit from the next lower classification.

Section 326. Defines invested capital and is practically the same as the old statute except that paragraph 2 limits the cash value of tangible property to the par value of the stock issued therefor. This is practically the same as the old statute, but the Treasury Department in construing the law credited the excess value of property as "paid in surplus." An early draft of this bill contained a provision that a taxpayer would be entitled to the excess value of exchanged property as paid in surplus which was eliminated from the bill as reported. This might be construed as being intentional on the part of the committee to exclude that excess value of property from being considered as invested capital. *This is a very important matter and no doubt the Senate will be asked to clarify the situation.*

Section 327. Confers power upon the Department to grant relief as has been done under the present law under section 210. This is a good provision and should be retained.

Section 336. Contains a provision that no consolidated returns shall be considered, but that the tax must be assessed upon the individual corporation liable therefor. This provision will likely cause a great deal of contention.

Section 1000. Is the new excise rate of \$1 for each \$1,000 of value for all corporation stock. There is very little change in this except in the doubling of the tax.

Section 1200. Provides for an advisory board to be composed of five members to be appointed by the President and to be confirmed by the Senate. It is assumed that this board is to take the place of the present advisory board, but to have greater authority. The statute does not describe its duties.

#### New Hampshire Administrator Named

The United States Fuel Administration announces the appointment of Hovey E. Slayton, a prominent shoe manufacturer of Manchester, N. H., as State Fuel Administrator for New Hampshire.



## COOPERATE TO STABILIZE CRUDE PETROLEUM PRICE

**National Petroleum War Service Committee and Fuel Administration Take Decided Action.**

A plan has been made effective through the cooperation of the National Petroleum War Service Committee and United States Fuel Administration that is intended to result in stabilizing the price of crude petroleum both to large and small refiners and maintaining the flow of crude oil in its present channels. It is believed that the arrangement will prevent any radical change in consumers' prices of gasoline and other oil products.

The details are to be handled by committees on conciliation and cooperation of the various producing fields. It has been the custom for various refiners to bid against each other for crude production by paying premiums in excess of the base rate for oil as established by the larger pipe line companies. This has resulted in the diversion of oil from one refinery to another and in many instances the payment of excessive prices for crude oil. It has led to considerable disorganization and for some months the Fuel Administration has sought to correct these practices. The greatest difficulty arising from this situation was experienced in the Mid-Continent field.

Mark L. Requa, General Director of the Oil Division of the United States Fuel Administration, recently met the producers and refiners of the Mid-Continent field in meetings at Tulsa, Oklahoma, and Houston, Texas. As a result of his suggestions the producers and refiners named from their own members committees to adjust any local dispute which, in the event they were unable to settle, it was agreed, would be referred to the National Petroleum War Service Committee. Should the National Committee be unable to adjust the dispute referred to it then appeal may be had to the Fuel Administration.

The plan provides generally for maximum premiums to be paid for oil of varying qualities in the various fields throughout the United States. It arranges, so far as is practicable, for the flow of oil in existing channels and assures protection as to price and supplies for small refiners. At the same time it will prevent any radical change in consumers' prices due to the competition which has influenced such prices.

The Fuel Administration believes that by leaving the settlement of all questions as to premiums and diversion of crude oil to the voluntary agreement of the industry itself the harmonious relations between the various interests will be maintained.

The Fuel Administration is also endeavoring to have established fair differentials for refiners and distributors.

It is believed this plan will assure the

producer a satisfactory price for his oil; the independent refiner protection against the higher bids of his competitor who would pay a greater premium and that the flow of production will be maintained without interruption or change. Thus the oil industry is contributing to the war-work program by eliminating conditions which have arisen out of the premium practice and through the harmonious adjustment of such differences as have existed in the past.

### Conditions Grew Worse

Denver, Colo., August 21, 1918.

Mr. J. F. CALLBREATH, Secretary,  
The American Mining Congress,  
Munsey Building,  
Washington, D. C.

DEAR MR. CALLBREATH:

I see that in the August issue of the Congress Journal you have reproduced my letter to you in respect of gold production; in which I suggested certain requirements as forming, in my judgment, the absolute minimum if production was to be maintained; but that, if increased production were required, a bonus in some form would be necessary.

May I be permitted to say, through the same channel, that the conditions, especially as to labor, have become still more unfavorable since that letter was written. I am now convinced that unless direct assistance, sufficient to absorb the increase of costs, is promptly forthcoming, the larger number of gold mines in this State will close down. If, later on, the Treasury should find that increased production of gold within the United States is necessary, we should have to resort to government operation, for gold mining is at best not a very profitable industry, and a large proportion of gold mines will not justify reopening with private capital under war conditions.

Yours sincerely,  
George Collins.

### Production Records Broken in Connellsville

Where the car supply has permitted, there has been marked stimulation of energy in bituminous coal mining regions. Report received by James B. Neale, director of production of the United States Fuel Administration, is to the effect that for the week ending August 23 the Connellsville field showed a production of 716,954 net tons, breaking all previous records for output for this district.

### Moseley Appointed

The selection of Mercer Pamplin Moseley as assistant fuel administrator for the state of New York has been approved by United States Fuel Administrator H. A. Garfield, and announcement to that effect has been communicated to Delos W. Cooke, New York state fuel administrator. Mr. Moseley succeeds C. E. Robertson, resigned.



## SUGGESTS REMEDIES TO AID THE GOLD MINING INDUSTRY

Helena, Mont., August 2, 1918.

J. F. CALLBREATH, Secretary,  
American Mining Congress,  
Washington, D. C.

Dear Sir:

Under the heading "Crisis in Gold Mining," Engineering and Mining Journal (New York), July 20, 1918, p. 146, it is stated that the advisory committee, referred to, is anxious for suggestions, same to be sent to your office.

Prior to reading the above item, I had prepared the following and beg to submit the same for consideration. I also refer to the Mining and Scientific Press (San Francisco), December 29, 1917, p. 924, "Do We Need Gold?" as my views of the situation, early in the discussions on Gold Mining which, from last fall on, have become more and more insistent.

### GOLD, THE STANDARD OF EXCHANGE

The fixation of the value of gold, *i. e.*, the coin, or exchange, value; represented by an ounce of the metal, was an arbitrary matter, but, in its inception, bore a general relation in the conception of its originators, to the value of articles of commerce and labor, of the time.

World-wide influences markedly and materially altering *these relations*, it is logical that the commercial powers—the nations of the earth—now in position to act in unity, establish a *new relation* between this, the most rational of all metallic metals of exchange, or medium of exchange, and the articles of commerce and labor.

Prior to the advent of the war, the relations between the medium of exchange and commerce and labor, were hurrying to a crisis, soon to demand an adjustment. Per capita production of gold was diminishing as well as the proportion of gold to general business transactions. The tenor of available sources had reached a low point and deposits were worked on most tenuous margins that the supply might be maintained. With the war, and the rise in materials and labor, these, and gold mining in general suffered, the burden steadily increasing until, now, we are told that the falling off will reach 35 per cent. This is due to the wide disparity between this, the fixed medium of exchange for, and the articles of, commerce and labor necessary to its production.

It is, then, as stated in the first paragraph, logical, that the nations of the earth, the allies with their production of 85 per cent of the gold of the world, fix a new relation between this, the recognized medium of exchange and the articles of commerce and labor.

Immediate action is imperative. Such fixation can be but tentative. An allied

conference spells delay. Being tentative, pending the termination of the war and establishment of post-war normal commercial conditions, such tentative fixation is practicable through the legislative powers of the largest credit nation, fortuitously one of the largest gold producers, of the world, *viz.* the United States, pre-eminently in position to do this.

Emergency action is essential, is imperative; there is no room for argument. Such argument as there has been, since the advent of the war has all been on the one side, *i. e.*, the *essential* nature of maintaining and increasing gold production, in itself the most convincing argument against the present unbalanced relation between the medium of exchange and articles of commerce and labor.

### REMEDY

The first step is to effectively suppress propaganda and departmental action against financing gold mining enterprises. This, as with the profiteering of the past months, bears the ear-mark of the hoarder of gold who looks to the day of a premium, by stress of conditions; remove the fixed—or implied—embargo against manufacture and transportation of mining and metallurgical machinery and supplies essential to gold mining and production; stabilize prices for essential mining, milling and metallurgical supplies.

The second step; determine, as affecting conditions in the United States and in its relations to international commerce, a relation of the value, per ounce, of the medium of exchange to articles of commerce and to labor, commensurate, as nearly as practical, with existing conditions, this to serve, tentatively and until a value can be *established*, by agreement, between the dominant nations of the earth.

As a war-measure, temporary relief may, in part, be afforded by the removal of federal taxation on *gold* production of gold mines and others, producing, in part, this metal. This action will, logically, be followed by the gold producing states, by similar action. Alone, such action would release some gold production, taken together, with the tentative fixation of value, as a war measure, the two afford a rational solution that will insure a maximum supply. Substitution of this, as a war measure, by international fixation of relative values between gold—the medium of exchange—and articles of commerce and labor, to take place upon the return of stabilized commercial conditions, after the war.

A bonus on gold is but an incentive to dishonesty and its trail of evils.

To allow gold to "go to a premium" but affords the profiteer his opportunity, to the injury of law-abiding citizens and, due to the uncertainties of a fluctuating and

speculative range of values, for gold offers little inducement to the investor or operator, hence *will not* maintain or increase the production, and will *per se* carry with it increased cost of materials, supplies and labor.

Great Britain, at the time of fixation of the relative value of gold, was preeminently in position to do so, the relation, in terms of our currency, being one ounce gold to \$20.67, standard of value, as represented in articles of commerce or labor. The United States, due to its position as the largest creditor nation, the largest manufacturing and exporting nation, is today in like position. Action by this country will receive the cordial endorsement of Great Britain, of France, of the allies.

The fixation of relative values is not a parallel to the yard stick, as one editorial writer puts it:

"The price for gold is *not* fixed. Commodities are exchanged for a certain quantity of gold, and it does not matter whether that be expressed in ounces, dollars or pounds sterling. Any change in the basis of exchange would be like a modification of the yard stick. A decree that the yard should be henceforth 72 inches long, instead of 36 inches, would not induce anybody to part with twice as much cotton cloth for the same money," i. e., the "same" medium of exchange for which he parts with his 72 inches of cotton, for in his statement he overlooks a factor in the transaction, viz.: the medium of exchange. (Engineering and Mining Journal, New York, July 27, 1918, p. 189.) In the same issue, page 165, second paragraph, Mr. Thane says: "The value was arbitrarily fixed by the Bank of England \* \* \*"

That the present relation between the value of gold and trade "was fixed"—to accord with the then existing conditions—permits and justifies the fixation today to meet the vastly altered relations. This, then, is the only logical course to follow.

Respectfully submitted,

L. S. ROPES.

Copy to Hon. T. J. Walsh, U. S. Senator, for Montana.

#### NO PRIORITY FOR MATERIALS FOR NEW OIL REFINERIES

The United States Fuel Administration has announced that owing to the shortage of steel and other materials, and because there is ample refining capacity in the mid-continent oil fields to take care of existing demands, it would not approve any priorities for materials to be used in the construction of new refineries.

Priorities will be approved for materials to maintain existing facilities and for such additions thereto as are necessary in the national interest.

#### WESTERN COAL BEING

##### TRIED OUT IN CHILE

As a means of relieving the pressure upon eastern coal, the United States Fuel Administration has arranged a test of state of Washington coal in South American industrial plants.

Trial cargoes were recently shipped from Puget Sound to Chile. The coal cargoes were accompanied by fuel experts, who will conduct the experiments.

Heretofore the coal for South American export has been taken from the mines of West Virginia, Pennsylvania and Maryland, which mines are now carrying the heaviest burden in producing coal for government uses. It is estimated they are 14,000,000 tons behind the production required from them to meet the war demands.

If it should be demonstrated that the western coast coals will answer the South American demands, a measure of protection will be afforded the eastern mines, the product of which is under heavy demand for navy uses, for bunkering of ships, and for industrial purposes in the congested manufacturing section of the northeast.

#### Kentucky Fields Re-classified

The coal fields of Kentucky have been re-classified into five producing districts by an order of the U. S. Fuel Administration, effective August 23. The order also fixes the prices at which coal shall be sold within each district. No changes of existing prices have been made except at certain thin vein mines of the Hazard and Elkhorn fields which have been given an increase of price equal to other fields where the same character of coal is mined.

Heretofore, the state was divided into two grand districts, the 85th degree of longitude being the dividing line. Under the new classification maximum prices for each of the districts have been fixed for run of mine, prepared sizes and screenings, in the order given, as follows:

District No. 1.....	\$1.90	\$2.15	\$1.60
District No. 2.....	2.10	2.35	1.85
District No. 3.....	2.55	2.80	2.30
District No. 4.....	2.20	2.45	1.95
District No. 5.....	2.20	2.45	1.95

Exceptions are made in the following cases:

Blue Gem Coal Co., \$3.55, \$3.80 and \$2.40; Wallan-Jellico Coal Co., \$3.25, \$3.50 and \$2.50; Elkhorn City Coal Co., and Guthria Coal Co., \$2.55, \$2.80 and \$2.30.

To all of the above prices may be added 45 cents per ton for wage increase if the producing companies are entitled to add such allowance under the President's order of October 27, 1917.



D. C. THOMSON  
Consulting engineer

### COAL MINES GET PREFERENCE OVER OTHER WAR INDUSTRIES

Coal comes first under an order of the War Industries Board covering the distribution of power by the West Penn Power Company, in the Pittsburgh district. The order will give coal mines a full supply of power, although other war industries served by the West Penn Company are now working a restricted number of hours.

Under the tremendous increase of war industry in the Pittsburgh district, the West Penn Company was overloaded. A breakdown in generating machinery added to the shortage. Under a previous plan, it was proposed to meet the shortage by dividing the power among all the essential war industries in the district, restricting lesser essential plants to night operation. Under this plan the coal mines, numbering about 150 in the Pittsburgh district, would have been forced to accept their pro rata share of the curtailment.

The vital importance of maintaining the increased production of coal and the necessities of industries served by the mines in the Pittsburgh district, presented to the War Industries Board by the Fuel Administration, prompted the order giving the mines first call on the available power.

### EXISTING COPPER PRICE IS EXTENDED TO NOVEMBER 1

The President has approved an agreement, made between the producers of copper and the Price Fixing Committee of the War Industries Board (after investigation by this committee in conjunction with the Federal Trade Commission as to cost of production), that the maximum price of copper shall be twenty-six cents per pound, taking effect August 15, 1918, for shipments after said date, but subject to revision after November 1, 1918, f. o. b. cars or lighters at eastern refineries, f. o. b. cars or lighters at Pacific Coast refineries for Pacific Coast destinations, and f. o. b. cars or lighters New York if shipped to eastern or interior destinations from Pacific Coast refineries and from refineries in the interior of the United States. All shipments made after November 1, 1918, are subject to any change in price made by the Price Fixing Committee to take effect after that date. This maximum price is subject to the additional charges on copper shapes approved by the Price Fixing Committee on June 5, 1918.

The conditions are: first, that the producers of copper will not reduce the wages now being paid; second, that they will sell to the United States Government, to the public in the United States, and to the allied governments at not above the maximum price; third, that they will take the necessary measures, under the direction of the War Industries Board, in the distribution of copper to prevent it from falling into the hands of speculators, who might increase the price to the public; and fourth, that they will pledge themselves to exert every effort necessary to keep up the production of copper so as to insure an adequate supply so long as the war lasts.

### Assistant Directors of Munitions

Benedict Crowell, the Director of Munitions, has announced that he has selected Thomas Nelson Perkins and G. H. Dorr to act as assistant directors of munitions.

Mr. Perkins was appointed counsel to the War Industries Board in October, 1917. In that capacity he accompanied Colonel House on his trip to England and France last autumn. On his return, after serving about six weeks as a member of the Priorities Committee of the War Industries Board, he became assistant to Mr. Stettinius when he was appointed Surveyor General of Supplies, and has been associated with Mr. Stettinius until this time.

Mr. Dorr was connected with the War Trade Board from August to December, 1917. Since that time he has served in the War Department as an assistant to Mr. Crowell. He was formerly Assistant United States Attorney for the Southern District of New York.

### ALABAMA PRICE ADJUSTMENT ENDS EXTENSIVE EXAMINATION

Coincident with the first anniversary of Mr. Garfield's incumbency of the position of United States Fuel Administrator an order was signed by him that marks the last stage of an examination into the cost of bituminous coal production in the various coal fields of the United States.

The coal fields of Alabama, which are the last to be examined, presented some of the most difficult problems which the engineers' committee of the Fuel Administration was required to handle. This was due to the fact that there are no clearly defined fields. Rather the coal measures overlap each other and must be determined by seams.

The general result as far as the cost to the public is concerned has not been materially altered, as the increases of price allowed to some mines are fully offset by decreases in other mine prices.

Comparisons with former prices are not possible on account of the new classifications being entirely different from those which were heretofore in effect.

With the completion of the examination of mining costs one of the most serious as well as one of the most difficult phases of the work of the Fuel Administration has been accomplished. An idea of the size of the task may be gathered from the fact that there are approximately seven thousand five hundred coal operators in the United States, and under the law each is required to furnish the Federal Trade Commission with monthly cost sheets.

When the President, one year ago, announced the Government control of fuel and the formation of the Fuel Administration, comparatively little information was at hand relative to the cost of production. Prices were announced, based on such information as had been obtained by the Federal Trade Commission and U. S. Geological Survey, and after conferences had been held between these bodies and the leading authorities on coal in the United States. With his announcement of prices the President stated that they were provisional, leaving to the Fuel Administrator revisions and adjustments from time to time.

Relief was given during the autumn to various fields and operators where it was apparent injustice had been done in the fixing of prices upon such information as had been afforded by the rapid investigations theretofore made.

In January, 1918, a definite policy for adjusting production costs had been completed and the matter of adjusting prices to costs was undertaken by a committee composed of Cyrus Garnsey, Jr. (who has since become Assistant U. S. Fuel Administrator), R. V. Norris and James H. Allport.

The form of cost sheets was the same adopted by the Federal Trade Commission, and upon these the coal operators are required to make monthly statements to the Fuel Administration.

Having now determined the various classifications and general basic cost of the production of coal, it will be a comparatively simple matter to tabulate and adjust the variations of the cost of production from month to month, and it will be possible to keep before the Fuel Administrator tabulations of figures showing how varying labor conditions, cost of mining material and car service will affect the cost of production.

The order effective August 23, announces a complete re-classification of the mining fields of Alabama and fixes the mine prices within each of the fields, as follows:

District No. 1, Big Seam Group, to wit: Big or Mary Lee and Newcastle Seams, Blue Creek Seam, except on Birmingham Mineral Branch of L. & N. Railroad south of Bessemer, Brookwood-Milddale Seam when worked together, and Henry Ellen or Acmar Seam. Run of mine, \$2.00; prepared sizes, \$2.30; slack or screenings, \$1.95.

District No. 2 to wit: Cahaba Group, being all seams in Cahaba field including the Montevelle group, excepting the Climax, Henry Ellen or Acmar, Helena and Harkness Seams, and the No. 2 Belle Ellen Mine in the Youngblood Seam.

Black Creek Group, being the Black Creek, Milddale, Carter and Durie Seams, the Underwood Seam in Etowah and Blount Counties, and the Jefferson Seam in Marion, Walker and Winston Counties. Run of mine, \$3.00; prepared sizes, \$3.30; slack or screenings, \$2.65.

District No. 3 Pratt Group, to wit: Pratt Corona, Brookwood, Nickel Plate, America, Jagger, Coal City, Marion and Belmont Seams, Jefferson Seam except in Walker, Marion and Winston Counties, Mount Carmel Seam or upper bench of Big Seam and Blue Creed Seam on Birmingham Mineral Branch of L. & N. Railroad south of Bessemer. Run of mine, \$2.40; prepared sizes, \$2.60; slack or screenings, \$2.00.

District No. 4, to wit: Helena and Harkness Seams and coal mined by No. 2 Belle Ellen Mine in Youngblood Seam. Run of mine, \$2.45; prepared sizes, \$2.75; slack or screenings, \$2.25.

District No. 5, to wit: Mines in the Climax Seam, in or about Maylene, Shelby County. Run of mine, \$4.15; prepared sizes, \$4.40; slack or screenings, \$2.05.

To the foregoing prices there may be added the 45 cent allowance for wage increase, if the producing companies are entitled to add such allowance under the President's order of October 27, 1917.

### CONTINGENT FEE PERMITTED IN COAL NEGOTIATIONS

That the so-called "Contingent Fee Covenant," directed by the President to be inserted in all government contracts is not applicable to the coal industry, is clearly set forth in a communication to the U. S. Fuel Administration from T. W. Gregory, Attorney General.

In order to break up the practice followed by many business concerns of negotiating government contracts through brokers or contingent fee operators, the President directed the insertion of a covenant in all government contracts prohibiting the practice.

To ascertain the influence of the covenant upon the sale of coal the Fuel Administration submitted to the Department of Justice, four interrogatories as follows:

"1—Where coal is purchased by a jobber from an operator at a price below the mine price fixed by the President or the United States Fuel Administrator, can such jobber sell such coal to the United States Government at the mine price so fixed? Of course in the case of such a sale, the jobber would be the "contractor" and not the operator, and it would appear that the profit realized by the jobber might not be construed as compensation paid by the operator to the jobber for the procurement of the contract.

"2—Is the above provision intended to prevent an operator from employing a sales agent on sales of coal to the Government where such sales agent receives as compensation for his services either a fixed price per ton or a percentage of the selling price? In the determination of this question it should be borne in mind that many coal operators do not maintain their own sales departments but employ established distributors of coal to act as sales agents under term contracts, on which such sales agents undertake to sell the output or a given quantity of the operator's coal for a fixed or percentage compensation.

"3—Is the above covenant to be construed to prevent any agency of the Government from employing a distributor of coal as purchasing agent and paying such agent the commission allowed by the Rule 2 of the Rules and Regulations in reference to licenses contained in Publication No. 22, enclosed herewith?

"4—Are contracts between coal operators and railroads to be construed as government contracts so as to require the insertion therein of the covenant quoted above? In answering this question the fact should be considered that a very large percentage of coal purchased by railroads in the past has been purchased—

"(1) At the government price through jobbers, who in turn purchase from the operators below the government price.

"(2) At the government price from sales agents, who receive their compensation from the operators.

"(3) At the government price through

purchasing agents employed by the railroad and paid by the railroad the purchasing agent's commission permitted by the above mentioned Rule 2."

The Attorney General's ruling is contained in a letter dated August 19, which reads as follows:

"I have before me your letter of July 20th on the subject of the covenant against contingent fee operators which the President has directed to be inserted in all government contracts.

"You ask how far the requirement of the insertion of this covenant is to be observed in certain circumstances arising in the coal industry, and what its effect will be if so inserted.

"I have no hesitation in saying that the circumstances set forth in your first, third and fourth paragraphs are within neither the letter nor the spirit of the covenant.

"In the second paragraph you ask

"Is the above provision intended to prevent an operator from employing a sales agent on sales of coal to the Government where such sales agent receives as compensation for his service either a fixed price per ton or a percentage of the selling price?

"The letter of the covenant and the President's request is broad enough unquestionably to include such a situation, but it is clear, when the attendant circumstances are considered, that the situation is not within the spirit either of the President's order or of the covenant. Rules and regulations have been promulgated relative to licenses for the distribution of coal and coke by which the compensation to be paid to sales agents is rigidly controlled. Manifestly, it was not the intention of the President in requesting the insertion of this covenant to modify the policy or affect these rules and regulations. The situation in the coal industry is, therefore, outside the mischief which the covenant was intended to cure, and unquestionably outside the President's intent.

"It is my opinion, therefore, that the covenant has no relation to any of the situations set forth in your letter."

### Bona Fide Contracts Stand

Bona fide contracts relative to charcoal made prior to the order of July 8, 1918, fixing the maximum prices of lump and screened charcoal in carload lots, will not be affected by this price order, in the absence of further express orders or regulations by the Fuel Administrator.

Neither shall the price fixing order be construed to impair the right of any shipper to charge and collect the contract price for any shipment of charcoal heretofore or hereafter made under any such contract.

An order to this effect was promulgated by the U. S. Fuel Administration, August 13.



### USE OF PRISON LABOR ON GOVERNMENT WORK URGED

The War Labor Policies Board has approved the policy of employing prison labor for government work as a war emergency and suggested that Congress provide by legislation for effectively carrying out the proposal and for avoiding the abuses of exploitation of the contract system.

This corresponds to the recommendations of the War, Navy and Labor Departments, and the War Industries Board, who have all approved the war prison labor bill now before Congress. This bill was prepared by the American Federation of Labor and the National Committee on Prisons and Prison Labor and has the approval of the President.

The principles embodied in the war prison labor bill were established by an overwhelming vote in July, when Congress passed the Sherley bill providing for the use of Federal prisons at Atlanta in the manufacture of cotton fabrics for the use of the War Department.

The demand on the part of the prison wardens throughout the United States, as well as the men behind the prison bars numbering more than 100,000, that they be allowed to help the Government in its war program has given the bill the universal sanction of the states.

The American Federation of Labor, which has been among the most ardent advocates of this legislation, has provided for safeguards whereby the manufacturer and free labor will not suffer from unfair competition. In fact, the bill provides against the practice of contractors who are able to procure prison labor at a very cheap rate and make enormous profits in competition with other business organizations engaged in government work.

### EMMET D. BOYLE HEADS PERMANENT GOLD CONFERENCE

With characteristic business acumen, the gold producers of the nation responded to the call for a conference on the gold situation at Reno last month. The call, issued jointly by Gov. Emmet D. Boyle of Nevada and The American Mining Congress, was the direct result of the investigations begun simultaneously by the Bureau of Mines through a committee headed by Hennen Jennings, The American Mining Congress, and by several state organizations, in consequence of most startling statements which had been made in England by Sir Lionel Phillips and in the United States by such eminent authorities as Mr. Jennings, who had given considerable time to a study of the world's gold supply. These statements showed that at the present rate of decrease in production and the abnormal increase in credits based upon a failing gold reserve, not only the

United States but the whole world was facing a financial crisis.

The reasons for a conference were fully stated in the August issue of this JOURNAL. From many quarters came suggested panaceas, some practical, some quite removed from the realm of possibilities without revolutionizing the financial standing of the United States.

When the gold producers assembled in Reno there was a very frank and open discussion of the gold industry and its elements of profit and loss. It was quickly recognized that if federal aid was desired by the gold men there must be put aside all theories and ideals and all desire for unusual profits. The entire problem must be placed before the Government in the form of a concrete argument showing in terms of dollars and cents the reasons why gold production must cease in certain districts and slow down in others unless there be given immediate relief.

The conference resolved itself into a working committee under the name "The American Gold Conference," and it is planned to maintain its work until some form of relief is granted acceptable to the men who are looked to as responsible for keeping up the production.

There was no tendency on the part of the speakers or delegates to create a "scare" regarding the danger to the world's credit, but there was a prevailing spirit of earnestness and fairness in all discussions. Governor Boyle, to whom must be given the credit of leading out in the recent effort to secure relief for the silver producers, had not failed to impress the representative producers and financiers of the country with the real need of getting together on this matter, and the list of delegates included many eminent men of affairs and the representatives of many large producing corporations.

The conference finally adopted a very reasonable and conservative resolution as expressing the consensus of opinion, and which, after declaring that a war emergency exists and giving the reasons therefor, suggests relief in the following terms:

"Resolved, That it is the sense of this meeting that of all the various measures which have been suggested the following will be most effective in maintaining and encouraging production of gold in the United States, namely:

"Relief by the United States to the gold producers of this country to correspond with the increased cost of production, the extent of such relief to be fixed from time to time to meet changing conditions.

"That nothing contained in these resolutions as passed is to be construed as meaning an intention to alter the amount of gold in the dollar, nor to place a premium upon gold."

Governor Boyle was elected as president of the permanent conference, and Henry M. Rives, secretary of the Nevada Mine Operators' Association, was elected secretary. It was decided to raise sufficient funds with which to meet the expense of assembling data



and presenting the same to Congress, and several thousand dollars were raised at the conference and placed in the hands of a finance committee, composed of Eugene Davis, of Nevada; G. W. Starr, of California, and G. M. Taylor, of Colorado.

A general committee, composed of one member from each gold producing state, was authorized, and an executive committee, composed of Governor Boyle, W. J. Loring, Bulkeley Wells, Whitman Symmes and George W. Starr, was elected.

This executive committee will soon visit the National Capital, and in conjunction with the Bureau of Mines committee and The American Mining Congress will place the evidence before Congress and insist that a legitimate measure of relief be granted.

Among those who were present at the Reno conference were President Albert Burch, of the California Metal Producers' Association; Bulkeley Wells, governor of the Colorado Chapter of The American Mining Congress; George M. Taylor, president of the Colorado Metal Mining Association; H. N. Lawrie, chairman of the Oregon Bureau of Mines and Geology; Prof. Francis C. Lincoln, director of the Mackey School of Mines; L. A. Friedman, of Lovelock, Nev., member of the National Board of Directors of The American Mining Congress, and C. C. Plehn, of the University of California.

The delegates numbered sixty, representing Arizona, California, Colorado, Utah, Montana, Nevada, Oregon, Idaho, and Alaska. The American Mining Congress and the United States Bureau of Mines were represented.

The conference was notable for the sound business judgment which pervaded the discussions and the declaration of its final resolutions—that the value of the American dollar must not be tampered with—will probably go far toward winning the immediate respect of the nation in considering the claims of gold producers at this time.

#### **Great Saving Through Work in Power Plants**

The United States Fuel Administration's conservation bureau has reported a saving at the rate of 350,000 tons of coal annually in its campaign for fuel economy in steam power plants. This saving has been initiated through the inspection of 300 of the larger plants of the country.

Each of the 250,000 plants in the country will be inspected as fast as the work can be accomplished, and it is estimated that 20,000,000 tons of coal can be saved.

This saving has not been effected by any closing down or curtailment of industry, and is the result of applying scientific methods to the operation of boilers and engines. It has put money in the pockets of the plant owners and at the same time made available a large amount of coal for war needs and for heating homes next winter.

#### **EXPECT TO SPEED UP ALL BRASS MILLS IN COUNTRY**

At a conference with Bernard M. Baruch, chairman of the War Industries Board, and other officials of the board, representatives of the brass manufacturers promised full co-operation with the government officials in plans to speed up the rolled brass mills production to cure a shortage in the supply of essential war material, such as shells, cartridges, condenser tubes, etc. Plans suggested to this end were:

1. Each mill to take its full share of government business.
2. Each mill to take work best suited to its equipment.
3. Cut off all non-essential uses of the products in which there is a shortage.
4. Determination by the manufacturers to get out the product in the face of obstacles; in other words, to work up to full capacity.

The meeting of the manufacturers to consider the Government's requirements for its own forces and to supply the needs of the Allies was called by Everett Morss, chief of the Brass Section of the War Industries Board. The industry was largely represented.

The chief difficulty in the way of maximum production, it developed, was shortage in labor. It was stated that with 9,600 additional unskilled laborers the mills could increase their output 33 1-3 per cent. Theoretically, there is mill and machine capacity to meet demands, but full capacity is seldom attained at a mill. A number of plants are installing additional facilities and the output of such plants will be increased shortly.

The cutting out of non-essential uses of the particular products needed in the war program was urged as a necessary move in the plan to give some relief immediately to a situation that is serious. This part of the program to prevent shortage in war material will be taken care of later by the War Industries Board, and the manufacturers pledged their best efforts to get the greatest production from their mills. Their gross production is now figured at about 2,910,000 pounds per day. An increase of a third would give a production of 3,388,000 pounds per day, while the gross demands, according to latest figures, are about 4,685,000 pounds per day.

#### **Send Big Oil Tanks Abroad**

The Fuel and Forage Division of the Quartermaster Corps has procured four oil tanks of 55,000 barrel capacity each, which will be shipped to France and erected there for the use of the American Expeditionary Forces. These tanks will give storage for 11,000,000 gallons of oil or gasoline, an amount approximating the requirements for a period of two months.

## STORAGE OF COAL AT PLANTS LIMITED

### Inequalities in Size of Coal Reserves Lead to Order Looking to Equalization.

The tremendously increasing demand for coal for special war purposes in the eastern part of the country, particularly for the Navy and Transport Service is making it necessary to draw more heavily on the Eastern coal fields than was originally contemplated.

In order to decide how best to secure this coal for these purposes with the least disturbance of coal supply moving to other industries, a meeting of all State Fuel Administrators east of the Mississippi and also the States of Minnesota, North Dakota and South Dakota was held in Washington August 20.

At this meeting it was decided that to accomplish the desired result it would be necessary to limit the amount of coal storage that industrial plants would be allowed to accumulate and to carry on hand and to fix a uniform amount for each State.

The following report, framed by a committee of State Fuel Administrators aided by officials of the Administration, was adopted by the conference, and concurred in by Dr. Garfield:

"The maximum limits of storage indicated for the several states or parts of states defined hereafter are as follows (see table).

"It is understood that these limits are mandatory and each Fuel Administrator is expected to see that the different classes of consumers are not allowed to exceed these limits. At the same time, it is understood that particular cases may require special treatment by a State Fuel Administrator, either by way of granting more stocks of coal than are indicated by these limits, or by restricting them to a less supply than indicated by these limits.

"Where a State Administrator decides that the maximum limit should be exceeded in a special case for some special reason, he shall have authority to grant a revocable increase in writing for a specific added number of days. The administrator shall report each

### MAXIMUM NUMBER DAYS STORAGE BITUMINOUS COAL ALLOWED UNTIL FURTHER NOTICE

	Public utilities	Steam coal		By-product and gas coal		
		Preferred industries	Non-preferred industries	By-product and gas plant's	Preferred industries	Non-preferred industries
Maine.....	120	90	30	120	90	0
Mass., Vt., N. H., Northern N. Y.....	90	60	30	90	60	0
Conn., R. I.....	75	45	20	75	45	0
Southern N. Y., N. J. Del., Eastern Pa.....	30	30	15	45	30	0
Md., D. C., Va., N. C., S. C., Ga., Fla., Western Ohio.....	30	30	15	45	30	0
Western Pa., W. Va., Eastern Ky., Eastern Ohio.....	30	20	15	45	30	0
Lower Michigan.....	90	45	20	60	60	0
Ill., Ind., Mo.....				60	60	0
Wis., Minn., N. D., S. D., Upper Mich.....				90	90	0

United States Fuel Administrator Garfield announced the basic policy of the Fuel Administration as to storage as follows:

"Coal in excess of that required for current operations shall be delivered to plants not on the Preference List of the War Industries Board only when it is not in demand for use before April 1, 1919, by consumers on said list, namely, railroads, the Federal Government, states, counties, public utilities, retail dealers, or manufacturing plants on the Preference List.

"In carrying out this policy, allowance shall be made for differences in distance from the mines and for differences in transportation conditions which may require more or less storage at the beginning of winter to insure uninterrupted operation until the following spring."

such specific case in writing immediately to the United States Fuel Administration at Washington, which may in writing disapprove the extension granted by him. Otherwise, it shall stand subject to action of the State Fuel Administrator.

"Any company or concern which is permitted under the zoning regulations now or hereafter in force, to obtain coal from Illinois, Indiana, Western Kentucky, or from mines west of the Mississippi River may retain such reserve stock of coal as it shall have on the effective date hereof, on condition that such company or concern shall thereafter use screenings or mine run only, for its current necessities, and shall obtain such screenings or mine run for current use only from such last mentioned fields."

# THE MINING CONGRESS JOURNAL

PUBLISHED EACH MONTH BY  
THE AMERICAN MINING CONGRESS,  
Munsey Building, Washington, D. C.

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New York Office: Room 225, 30 E. 43d St., Tel. Murray Hill 3830.

Chicago Office: 908 Rector Building, Tel. Central 8744.

Subscription Rate, per year..... \$2.00  
Single Copies..... .20

Entered as Second Class Matter January 30, 1915,  
at the Postoffice at Washington, D. C.

SEPTEMBER, 1918

## GENERAL WAGE INCREASE GRANTED AT HERCULANEUM

William H. Taft and Frank P. Walsh, sitting as arbitrators on behalf of the National War Labor Board in the dispute between the management and the employees of the St. Joseph Lead Company at its lead smelter in Herculanum, Mo., have rendered an award which grants to the workers a general increase in wages, establishes a minimum wage, and provides a system of collective bargaining between employer and employee. The award is made retroactive to April 21, the date on which, at the suggestion of the striking employees, the two parties jointly submitted their dispute to the jurisdiction of the board.

The arbitrators held the increase in wages to be necessary in order to maintain in full health and efficiency the workers in

this primary war industry, which, the opinion points out, produces one-ninth of all the lead mined in this country. The product goes chiefly into bullets and shrapnel. It was found that the workers, who are peculiarly subjected to the danger of "lead poisoning," had suffered an alarming number of workless days through sickness, and were often supported during such periods from the funds of their labor union, since their wages were frequently too low to make possible any savings. For the same reason many workers were obliged to default in their Liberty Loan payments. The efficiency of the plant had likewise suffered from an enormous labor turnover, sometimes as high as 200 per cent per annum, partly due to the rate of wages.

The arbitrators granted the wage increase on a sliding scale, in harmony with the principle recently applied by the Railroad Wage Commission, giving to the \$3 a day men a flat raise of \$1, or 33-1-3 per cent, and graduating the rate of increase down to 10 per cent, or 50 cents a day for those earning \$5. For those earning more than \$5 a day the increase was merely nominal. In thus favoring the least skilled workers and in establishing a minimum wage of \$4 a day, the arbitrators were guided by the board's principle that "minimum rates of pay shall be established which will insure the subsistence of the worker and his family in health and reasonable comfort." As in all other awards made by the board, it is here provided that these rates of pay may be readjusted at intervals of six months in conformity with the change in the cost of living.

The arbitrators also granted 50 per cent additional pay for the first two hours worked in excess of eight hours per day, and double pay for additional hours, as well as for Sundays and holidays. The plant during the war has been working on a seven-day basis.

The arbitrators refused the request of the employees that their union be recognized and dealt with as such during war-time, but provided for the election of committees of the men to facilitate collective bargaining. The board thereby maintains the pre-war status of the plant in relation to unionism, while protecting the workers in their efforts to adjust complaints without undue friction, through chosen representatives. The right of the men to membership in their union is affirmed.

The administration of this award will be placed in the hands of a representative of the board, whose decision will in every case be binding, pending appeal.

C. M. Harvey, of El Paso, Texas, was in Washington recently. Mr. Harvey is part owner of Commerce Mining & Royalty Company, of Miami, Okla.

## EXPANSION OF WAR INDUSTRIES CALLS FOR BIG COAL TONNAGE

The demand for fuel, on the part of the war-making branches of the Government and the war industries is growing by leaps and bounds. Every increase in the war-making efficiency of the nation is forcing a corresponding increase in the fuel demand. Estimates of the coal consumption for the year, which were judged high in April, are now proving inadequate.

It becomes increasingly apparent that despite the phenomenal increase in the rate of production at the mines, despite the splendid effort of the mines and miners under pressure from the Fuel Administration, the strictest fuel economy must be enforced if the country is to escape a serious coal shortage next winter. Every means of coal conservation must be observed, and every wasteful and unnecessary use of coal must be eliminated.

Almost daily, applications are coming to the United States Fuel Administration from War Industries for allotments of coal in addition to those made at the beginning of the coal year. Some are from new plants authorized by the War Industries Board, not known to the Fuel Administration at the beginning of the year.

The requirements for these plants are in addition to the original allotments. Other demands are from plants already on the Preferred List of war industries, for increased allowances because of enlargements and extensions to original plants, made since the Fuel Administration compiled its estimates of consumption.

The increased demand for coal for the Navy reached almost one hundred percent in July. Whereas, three and a half million tons was allotted to the Navy in April, the requirements by the middle of July had reached a basis of six million tons. By the end of the calendar year 1919, it is estimated that approximately eight million tons will be required to cover these demands.

With the launching of new ships, the requirements of the Shipping Board have likewise grown beyond all expectation. When the annual allotment was made, at the first of April, ten million tons was assigned for the purposes of the Shipping Board. The actual requirements as demonstrated by experience, and as a result of the phenomenal results being achieved by the Shipping Board, now place the figure at thirteen million tons.

So also, coal for bunkering purposes, at first estimated at thirteen and a half million tons, has grown in demand until present calculations call for twenty-one million tons.

New industries, not in operation at the beginning of the coal year, are now running full tilt or are about to start. From these come demands for coal of consequential proportions. A few are here enumerated, some of which are

new plants, or additions to existing plants, made necessary by the enormously increased demands for war manufacture. To mention some of these new demands:

Youngstown Sheet and Tube Co., additional requirements, 45,000 tons by-product coal per month;

Cambria Steel Company, 27,000 additional tons by-product coal per month;

The Edgewood Arsenal, 30,000 tons steam coal per month;

The Perryville, powder plant, 15,000 tons steam coal per month;

Worth Steel Company, 6,000 tons producer gas and steam coal per month;

These new requirements alone represent an annual consumption of nearly a million and a half tons.

Aside from the increased requirements here shown, originating from new or enlarged plants, many old plants, rated at the beginning of the coal year for marked increases of allowance over the consumption of 1917, are now demanding still more coal. Practically all the steel plants and furnaces are running on full time, twenty-four hours per day. There are no suspensions of operations save for repairs and overhauling of plants. In some instances the yearly coal requirements were underestimated. In many others, enlarged production, under increased efficiency has created a demand for additional coal. Invariably, increased steel production calls for increased coal production, demanding about five tons of coal for each ton of steel produced.

The source of supply for the particular new coal requirements cited, is within a limited coal area. The extra allowances and demands there made, call for coal from New River and Pocahontas low volatile fields of West Virginia; the low volatile fields of Pennsylvania and Maryland; and the high volatile fields of West Virginia, Pennsylvania and Kentucky. These fields produce the grades of coal especially needed for the war-work. And it is from these same fields—with the exception of Kentucky—that the enormous calls of New England and the Atlantic States for coal for war use, must be answered.

The fields named are working at top-notch speed when accorded full car supply. But, unfortunately, they are the fields where transportation service is most difficult to secure. Not only does the eastern manufacturing section rely entirely upon the fields named for their tremendous coal supply, but by-product plants everywhere, and gas plants, generally, derive their coal supply from this limited territory. The mines within this territory were, on July 27, more than fourteen million tons short of their scheduled output, estimated by the Fuel Administration as necessary to meet its fuel needs of the country.

The U. S. Fuel Administration faces the difficulty of meeting greatly increased demands for coal, not from the nation's big coal pile,

but from a much smaller pile, representing the output within a small area. The war necessities must be cared for by coal from these fields and non-war industries will be given coal from them only after the war plants designated by the War Industries Board for preference are supplied.

#### Legislation Now Pending

Few bills of importance to the mining fraternity have been introduced in the House or Senate since THE MINING CONGRESS JOURNAL for August went to press. The most important, the Henderson bill, attention to which was called in a recent editorial, was finally introduced.

The Henderson bill contemplates federal control in production, purchase, allocation, export and import of the principal metallurgical products, metals, alloys and chemical compounds as covered in the original Foster bill as amended and passed by the House earlier. The new bill does away with several features which were objected to in the House bill, such as the licensing feature. It is a combined bill meeting the suggestions of Senator Henderson and his colleagues on the Senate Committee on Mines and Mining, the bill proposed by Secretary Lane and Director Manning, and the ideas of President Wilson as to the power of control. It provides for the organization of a \$50,000,000 purchasing corporation, to be organized under the direction of the President, and authorizes the President to requisition either products or mines which may not be working up to capacity. Authority granted under the proposed bill extends two years beyond the close of the present war, in order that the Federal Government can protect the nation in the matter of prices and can dispose of any accumulated stock of minerals or metals under profit-making conditions.

S. 4879, by Senator Borah—A bill to provide to defray war expenses and for other purposes through taxes assessed on gross sales, as follows: One cent on purchases from 5 cents to \$99.99; 3 cents on sales from \$100 to \$499.99; 6 cents up to \$999.99; 10 cents on the first \$1,000 and 5 cents on each additional \$1,000 on transactions ranging up to \$10,000; 25 cents on the first \$1,000 and 4 cents on each additional \$1,000 in transactions up to \$50,000; \$1 on the first \$1,000 and 3 cents on each additional \$1,000 on transactions of \$50,000 or more. The bill provides certain exemptions for public and charity organizations, soldiers, etc., and provides for the use of stamps and the affixing of the same. Duplicated by H. R. 12774, by Mr. Smith of Idaho.

H. J. Res. 318, by Mr. Raker—Authorizing further suspension of annual assessment work on mining claims until midnight, December 31, of the year in which the war is concluded. This resolution has been reported favorably, and will probably meet no opposition.

H. R. 12767, by Mr. Keating—A bill prohibiting child labor. Provides that no child under 14 years shall be employed and no child between the ages of 14 and 16 shall be employed more than eight hours a day or more than six days weekly.

#### ALLIED PETROLEUM EXPERTS CONFER IN WASHINGTON

The Specifications Commission of the Inter-Allied Petroleum Conference in London is in Washington for the purpose of discussing the standardization of specifications for petroleum products with the committee recently appointed by presidential proclamation. The Specifications Commission from London is composed of the following members: W. Fraser, chairman; H. R. J. Conacher, secretary; Engineer Commander A. E. Hyne, Royal Navy; Capt. W. E. Guttentag, British Air Ministry; Capt. E. C. Paix, French Army; Capt. L. Noyer, French Army, and Major Galileo, Italian Navy.

A. C. Woodman and W. A. Williams have been nominated as alternates to represent the American Government in the absence of Chester Naramore and W. E. Perdew, who are now in Europe.

The above named commission is meeting in conference with the American Committee on Standardization of Petroleum Products, composed of the following members: M. L. Requa, general director, Oil Division, United States Fuel Administration, chairman; J. W. Williams, secretary; Col. George E. Warren, appointed by the Secretary of War; Admiral R. S. Griffin, appointed by the Secretary of the Navy; H. L. Doherty, appointed by the chairman of the Shipping Board; C. B. Young, appointed by the Director General of Railroads; C. H. Beal, appointed by the Director of the Bureau of Mines, and Dr. C. W. Waidner, appointed by the Director of the Bureau of Standards.

#### Sheet Zinc Price Fixed

The fact that in the past three months the cost of producing zinc has increased 10 per cent led the producers of sheet and plate zinc to request the Price Fixing Committee of the War Industries Board not to fix a permanent price on that commodity and not to extend the present price of fourteen cents for plate and fifteen cents for sheet zinc beyond January 1. The Committee granted the request and announced that the above named figure would stand for the closing months of the year, the producers to be given an opportunity to present arguments before a new price is considered. The conditions imposed under previous agreements prevent reduction of wages and fix the price alike to government, allies and private purchasers and these stipulations were continued in force by the Price Fixing Committee.



### RIGHT OF WORKERS TO ORGANIZE UPHELD BY WAR LABOR BOARD

The National War Labor Board rendered the following as its award in the controversy between the Smith & Wesson Company, arms manufacturers, and their employees at Springfield, Mass.:

#### INDIVIDUAL CONTRACTS

"The practice of the company in times past to take restrictive personal contracts, even if lawful when made, such as were shown to the Section, is contrary to the principles of the National War Labor Board, and the practice of taking such contracts should be discontinued for the period of the war.

#### DISCRIMINATION

"Relative to the charges of discrimination against employees for joining labor unions, and to the discharge of certain employees as shown in the record, the fundamental principles upon which the National War Labor Board is founded, under the proclamation of the President of date April 8, 1918, are conclusive as to these points and admit of no misinterpretation. They are:

"The right of workers to organize in trade unions and to bargain collectively through chosen representatives is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the employers in any manner whatsoever.

"The right of employers to organize in associations or groups and to bargain collectively through chosen representatives is recognized and affirmed. This right shall not be denied, abridged, or interfered with by the workers in any manner whatsoever.

"Employers should not discharge workers for membership in trade unions, nor for legitimate trade-union activities.

"The workers, in the exercise of their right to organize, shall not use coercive measures of any kind to induce persons to join their organizations nor to induce employers to bargain or deal therewith.

"In accordance with said principles we recommend that said employees be restored to their former positions and paid for all time lost by them on account of their discharge.

#### COLLECTIVE BARGAINING

"Under the principles quoted in the preceding paragraph, the workers have the right to 'bargain collectively through chosen representatives.' In accordance with these principles we recommend the following:

"The election by the workers of their representative department committees to present grievances and mediate with the company shall be held, during the life of

this award, in some convenient public building in the neighborhood of the plant, to be selected by the examiner of this board assigned to supervise the execution of this award, or, in case of his absence, by some impartial person, a resident of Springfield, Mass., to be selected by such examiner. Such examiner, or his substitute, shall preside over the first and all subsequent elections during the life of this award, and have the power to make the proper regulations to secure absolute fairness.

"In the elections the examiner shall provide, however practicable, for the minority representation by limiting the right of each voter to a vote for less than the total number of the committee to be selected. Elections shall be held annually.

"The duties of the Department Committees shall be confined to the adjustment of disputes which the shop foreman and the division superintendents and employees have been unable to adjust.

"The Department Committees shall meet annually and shall elect from among their number three (3) employees who shall be known as the committee on appeals. This committee shall meet with the management for the purpose of adjusting disputes which the Department Committees have failed to adjust.

#### WAGES AND WORKING CONDITIONS

"We recommend that all matters in dispute as to wages and other conditions of employment be adjusted by the committees herein provided for, and in case of disagreement that reference be made to this board.

#### INTERPRETATION OF AWARD

"For the purpose of securing a proper interpretation of the award, the secretary of the National War Labor Board shall appoint an examiner, who shall hear any differences arising in respect to this award between the parties and promptly render his decision, from which an appeal may be taken by either party to the section making this award. Pending such appeal the decision of the examiner is to be binding.

F. N. JUDSON,  
W. JETT LAUCK,      FRANK P. WALSH,  
Secretary.              Joint Chairmen.

The above award prepared by Frank P. Walsh, Joint Chairman of the Board, and Frederick N. Judson, of St. Louis, alternate for Joint Chairman William Howard Taft, acting as a section of the board in charge of the case.

In commenting upon the award, Joint Chairman Walsh said:

"This is one of the most important cases yet decided by the board. The company claimed the right to make individual con-



tracts with the men, which was intended to prevent employes from thereafter joining labor unions under the right guaranteed to them by the very first principle of the War Labor Board. This was a flagrant violation of one of the principles of the board, viz.: that contracts of this restrictive character should be waived by all employers for the period of the war.

"This finding, of course, does not in any way affect the legality of such contracts in ordinary times.

"In this case the company further sought to deny to its employes any form of collective bargaining. The machinery is provided in the award for a complete system of collective bargaining through committees appointed by the company to meet with similar committees democratically selected by the employes of the plant.

"In order that uniformity in the industries of the nation may be had, and to prevent charges of coercion or other improper conduct upon either side, the award provides that the committees shall be selected under the direction of a representative of the National War Labor Board and that the election shall be held in a public building at Springfield, Mass.

"The board did not take up the specific grievances of the Smith & Wesson employes as to wages and conditions of employment, which were held to be onerous and exhausting, for the reason that such matters can best be adjusted by the employes and the management through the committees provided for in the award. Of course, if this cannot readily be done, summary appeals to the board for speedy adjustments are provided."

#### IN SPITE OF CAR SHORTAGE INDIANA COUNTY SETS RECORD

That railroad car shortage remains a disturbing element in some coal production fields where strenuous efforts are being made for patriotically increased production is evidenced by reports of district representatives to the Production Bureau of the United States Fuel Administration.

In Indiana especially they have taken the call of the Fuel Administration to heart and the mine workers are earnestly striving by working full hours and on all working days to break records for production. The eight mines of the Knox County, Indiana, Coal Operators' Association produced 323,887 tons of coal during July. The largest month's record previous to this reached only 293,499 tons. The notable thing about this new production record is that it was accomplished in the face of the fact that this particular field lost 350 hours, or more than 21 per cent, on account of car shortage.

#### SUNDAY ORDER IS SAVING LARGE AMOUNT OF GASOLINE

The United States Fuel Administration considers it necessary that a limited conservation of gasoline be undertaken in the states east of the Mississippi River, in view of the increasing demand for gasoline for war purposes and the paramount obligation of meeting promptly and fully all overseas requirements.

An appeal has been made to the people of the United States east of the Mississippi River to exercise rigid economy in the consumption of gasoline for a few weeks as a necessary and practical act of patriotism.

War necessities are being and will continue to be promptly and fully met, but this is the period of the year when consumption of gasoline is at its highest, and the increased domestic demands, together with the extensive military operations in France, have rendered necessary for a limited period the adoption of safeguards against possible shortage.

In view of the difficulty, if not the impossibility, of differentiating between the various uses to which automobiles are applied, the United States Fuel Administration believes that the greatest measure of economy can be effected with the least interference with the business of the country through the discontinuance of the use of all classes of motor vehicles, motor boats and motorcycles on Sundays.

The United States Fuel Administration therefore requested that in the section of the United States east of the Mississippi River there shall be a discontinuance of use of the vehicles above specified, including all such as are operated for hire, on each Sunday until notification that the need for such discontinuance has ceased.

The following exceptions were made:

1. Tractors and motor trucks employed in actual transportation of freight.
2. Vehicles of physicians used in performance of professional duties.
3. Ambulances, fire apparatus, police patrol wagons, undertakers' wagons, and conveyances used for funerals.
4. Railway equipment using gasoline.
5. Repair outfits employed by telephone and public service companies.
6. Motor vehicles on errands of necessity in rural communities where transportation by steam or electricity is not available.

In addition to the above, appeal is made to the patriotic men and women of America east of the Mississippi River to undertake, voluntarily, additional conservation in the operating of their own automobiles wherever possible.

The United States Fuel Administration believes that all consumers of gasoline will observe the spirit of this request. In that event, no mandatory order governing the use of gasoline will be necessary.

The request made by the Fuel Administration was not intended to prohibit reasonable

use of gasoline driven vehicles as a means of necessary transportation where no other means are available.

Mr. Garfield believes that the public will construe the request wisely and intelligently, and will not use their automobiles for other than the most necessary purposes.

The intention of the request is that all mere pleasure riding be eliminated, but that necessary use of the automobile be not interfered with.

Just what is "pleasure riding" and what is "necessary use" must be determined by the individual, keeping in mind always that we must have additional reserves of gasoline, so that there may be no possibility of delays in overseas shipments.

The United States Fuel Administration will not attempt to tabulate automobile traffic.

In response to queries as to what amount in saving of gasoline might be expected as a result of the United States Fuel Administration's request that the use of automobiles be restricted on Sundays, M. L. Requa, director of the Oil Division, says:

"The request for this conservation applies only to the territory east of the Mississippi River. In this territory there are 4,000,000 motor-driven vehicles, of which approximately 200,000 are trucks. It is fair to assume that the remaining 3,800,000 motor vehicles, if run on Sundays, would each use 2 gallons of gasoline; so that the saving to be effected, if every motor user patriotically complies with the Fuel Administration's request, would be about 7,600,000 gallons. This would be in addition to the saving effected by the non-use of motor boats; and in this connection it might be well to state that the conservation request has no application to those motor fishing boats plying at a necessary trade.

"Motorists are requested to initiate every means of conservation possible in the handling and use of gasoline and lubricating oils. The useless operation of engines when the car is not in motion must be discontinued. Extreme care must be exercised that gasoline and oil is not spilled, that leaks are not tolerated, and evaporation not permitted. The gasoline and lubricating oil user must realize that there is not an inexhaustible supply of crude oil, and he must appreciate the fact that the need for it now exceeds that of any previous time.

"War needs must be first supplied. By conserving through the non-use of motor-driven vehicles for a few Sundays and the exercise of care in the use of gasoline and oil during other days, there probably will be no necessity for more severe control.

"If this program is followed to the extent that the Fuel Administration believes it will be, a few Sundays will effect the desired conservation."

## URGES STIMULATION OF WORK ON POTASH RECOVERY

"According to the figures given out by the U. S. Geological Survey, the production of potash for the first half of this year was between 20,000 and 25,000 tons of K<sub>2</sub>O, and it is estimated that the total for the year will reach 60,000 tons. This is about 25 per cent of our pre-war importations, and if this country is to become independent of Germany, immediate steps should be taken to further develop our own sources of supply," says a well known potash authority. "The cement works and blast furnaces alone should be able to supply our total requirements," he continued, "but so far these industries have done very little. By the end of 1918 about a dozen cement companies will be recovering potash as a by-product, and incidentally abating the dust nuisance. The blast furnaces are doing practically nothing, although it is generally recognized that they would benefit considerably by obtaining cleaner gas for the stoves and gas engines. The manufacturers can hardly be blamed for not putting money in the necessary additions to their plants under the present uncertainty of the whole potash question. Although the present prices are high, no one knows how long they will last, and under the proposed revenue bill most of the profits would be taken by the Government as taxes. The manufacturers would not object to this if they were allowed to amortise the cost of plant before being subject to any profits tax. The producers of potash should also be given definite assurance by the Government that there will be no 'dumping' of German potash after the war.

"A source which it seems to us should be thoroughly investigated is the potash-bearing silicate rocks. There are large deposits of these running fairly high in potash, notably the green sands of New Jersey, the leucite deposits of Wyoming, and the sericites and potash-bearing states of Georgia. Although no commercially successful method of extracting potash from silicate in general has as yet been developed, this problem should not be beyond the skill of American chemists and metallurgists. Congress granted an appropriation of \$175,000 in 1916 to the Department of Agriculture for an experimental plant for treating kelp, and it seems to us that the silicates offer an even more promising source of potash. We think it would be a very good idea if a similar appropriation were made to the Bureau of Mines for carrying out experiments on these silicates, as, if a successful process for extracting the potash can be developed, the supply of raw material is practically unlimited."

### PRODUCTION MANAGERS NAMED IN TWENTY-EIGHT DISTRICTS

The United States Fuel Administration through James B. Neale, Director of Production, announces the completion of a list of twenty-eight production managers appointed, one in each local producing district.

Each production manager will have charge of the campaign for increased production in his own district and to him the Production Committees, which are being formed at the great majority of the soft coal mines throughout the United States, will report.

Each Production Committee will consist of six members, three to represent the mine management and three to represent the mine workers. Thus both parties in interest will be represented. In case a mine has failed to produce the maximum tonnage, it will be up to the Production Committee to learn the cause or causes of the failure and to place the blame where it belongs, either with the mine management or with the men, and thus point out the way for improvement.

Whenever blame is placed, it will doubtless be accepted in good part as it will have been placed by a committee on which both parties are represented. Each week the Production Committee will post a list showing the names of the men who have been absent, or who have worked short hours, or who have loaded less than a fair amount of coal and the reasons will be given, setting forth clearly, whether in each particular case, the blame lies with the company or with the worker.

The production managers and the fields over which they will exercise authority are:

Charles O'Neill, Central Pennsylvania; F. B. Reiman, Western Pennsylvania, north of Pittsburgh; R. W. Gardiner, Pittsburgh and Panhandle District; James S. Amend, Westmoreland, Irwin Gas Ligonier, Latrobe and Greensburg; W. L. Byers, Connelleville region.

Howard P. Brydon, Cumberland, Piedmont and Upper Potomac, Md., and W. Va.; F. M. Lockhart, Somerset-Myersdale; J. J. Roby, Eastern and Central Ohio; William H. Wallace, Michigan; James H. Pritchard, Southern Ohio; H. F. Price, Big Sandy and Elkhorn; A. L. Al-lais, Hazard.

J. W. Dawson, high volatile fields of southern W. Va.; E. E. White, New River and Winding Gulf; R. D. Patterson, Tug River and Pocahontas field; G. D. Kilgore, Clinch Valley and Southwestern Va.

Howell J. Davis, Harlan field in Kentucky, Tennessee and Georgia; Judge H. C. Selheimer, Alabama; W. G. Duncan, Western Kentucky; W. J. Freeman, Indiana; F. C. Honnold, Illinois.

Ira Clemens, Iowa, Missouri, Kansas, Arkansas, Oklahoma and Texas; A. K. Craig, Montana and northern Wyoming; Thomas Sneddon, Utah and southern Wyoming; J. F. Welborn, Colorado; George T. Brown, New Mexico; Brooks Fleming, Fairmount-Clarksburg and D. C. Botting, State of Washington.

### NO CHANGE IN ALUMINUM PRICE FOR NEXT QUARTER

The President has approved an agreement made between the producers of Aluminum and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum base price for aluminum of thirty-three cents per pound f.o.b. United States producing plants, for fifty tons and over, of ingot of 98 to 99 per cent, be continued until March 1, 1919. Differentials for sheet, rod and wire and differentials for quantity, for grade and for alloys will remain those approved by the Price-Fixing Committee of the War Industries Board as effective from June 1, 1918. Copies of the price list including differentials may be obtained upon application to the Non-Ferrous Metals section of the War Industries Board.

These prices will be effective on deliveries made during the period from September 1, 1918, to March 1, 1919, on contracts made during said period; and furthermore, the new prices will be effective on deliveries made during said period on existing contracts which specify that the price shall be that in force at the time of delivery. Deliveries made during the period of September 1, 1918, to March 1, 1919, on other contracts shall be at the price stated in such contracts, except that on existing "direct and indirect government contracts" containing a provision that refund is to be made of the difference between the price stated in the contract and the "government fixed price, if, as and when made, such difference shall be refunded on deliveries made during the period from September 1, 1918, to March 1, 1919, on presentation of proper proof that the purchasing government gets the benefit of the refund."

The conditions are as formerly: First, the producers of aluminum will not reduce the wages now being paid; second, aluminum shall be sold to the United States Government, to the public in the United States, and to the allied governments at the same maximum base price; third, they will take the necessary measures, under the direction of the War Industries Board, in the distribution of aluminum to prevent it from falling into the hands of speculators who might increase the price to

the public; and fourth, they will pledge themselves to exert every effort necessary to keep up the production of aluminum so as to insure an adequate supply so long as the war lasts.

### **MANY PRODUCTION MANAGERS REPORT EXCELLENT RESULTS**

Recent reports from the production managers appointed by the United States Fuel Administration show that various plans inaugurated by them are highly successful in stimulating production and are interesting labor in the mine fields with the importance of their task.

The Clearfield Bituminous Coal Corporation in the thin vein district of central Pennsylvania, Charles O'Neill, production manager, has kept records of results accomplished largely through production committees since May of this year. In May the percentage of absentees from work in the mines was 20.8, in June it was 12.5, and in July 9.3 per cent. The tonnage produced per day, per man, under the stimulus of the production committee was: May, 4.8; June, 5.4, and July, 5.6 tons.

W. H. Wallace, production manager for Michigan, reports production for the week of August 10 as 35,242 tons, the largest production since April 1 of this year.

From Alabama, Production Manager Judge Selheimer reports production for the week ending August 10 as 427,718 tons, an increase of 10,256 tons over the week ending August 3 and an increase of 64,566 tons over the week ending July 6, which was the week preceding the inauguration of their present system of work to increase production. This increase in Alabama was made in the face of the fact that the mines lost 820 operating hours on account of car shortage.

Ira Clemens, production manager at Pittsburg, Kans., is trying out a plan of having wagon mines pool their tonnage so that two or three may load into one car, thus reducing the amount of equipment needed and securing the loading of cars more promptly.

A suggestion by W. L. Byers, production manager of the Connellsville district, has been submitted through the Production Bureau of the Railroad Administration that a campaign be started to stimulate greater effort on the part of railroad employees handling coal traffic.

E. E. White, production manager of the New River district, has held meetings of superintendents, bosses and fire bosses in his district, urging speeding up in production. He reports that farmers in his district whose sons are in the Army went into the mines and loaded from 10 to 15 tons per man, simply as an expression of their patriotism. The churches in this district are holding special meetings, at which the importance of increased coal production is urged.

### **DIRECTOR NEALE MAKES NEW APPEAL TO MINE OPERATORS**

That upon the mine operator as well as the mine worker lies the patriotic duty of doing everything possible to speed up the production of coal is the tenor of a letter sent by James B. Neale, director of production of the United States Fuel Administration, to all the coal operators of the country.

As the mine workers have been appealed to to work full time each day for six days a week, Mr. Neale says to the coal operators:

"You must practice the highest degree of efficiency as to mine management, and must see to it that your employees are given fair and courteous treatment. As you well know, there are two important factors in the production of coal—one, the operator; the other, the mine worker. The latter is helpless to do his part, no matter how willing, if you do not provide him with the means with which to do it. Plenty of mine cars, good air, sufficient timber and other materials are a few of the things you must provide. There are many others, and you must exercise great care to see to it that you do not fail in your duties.

"It is true that each day throughout the country many thousands of tons of coal are not mined, due to absence, inefficiency and short hours worked by the mine employees; but it is equally true that each day many thousands of tons of coal are not mined due to the fact that the operators have not made it possible for the mine workers to do as much as they willing to and would do. Both effective factors must be determined to do better than ever before. I hope that a wholesome, friendly spirit of rivalry will quickly develop between the mine management and the mine workers, so that each group will try its best to see that it has not prevented a marked increase in tonnage, and that, on the other hand, it has contributed the major part of a large increase in tonnage."

### **PRESIDENT ISSUES PROCLAMATION TO COAL MINING INDUSTRY**

The President has issued the following proclamation:

"To All Those Engaged in Coal Mining:

"The existing scarcity of coal is creating a grave danger—in fact the most serious which confronts us—and calls for prompt and vigorous action on the part of both operators and miners. Without an adequate supply our war program will be retarded, the effectiveness of our fighting forces in France will be lessened, the lives of our soldiers will be unnecessarily endangered and their hardships increased, and there will be much suffering in many homes throughout the country during the coming winter.

"I am well aware that your ranks have been seriously depleted by the draft, by

voluntary enlistment, and by the demands of other essential industries. This handicap can be overcome, however, and sufficient coal can be mined in spite of it, if every one connected with the industry, from the highest official to the youngest boy, will give his best work each day for the full number of work hours. The operators must be zealous as never before to bring about the highest efficiency of management, to establish the best possible working conditions, and to accord fair treatment to everybody, so that the opportunity to work at his best may be accorded every workman. The miners should report for work every day, unless prevented by unavoidable causes, and should not only stay in the mines the full time, but also see to it that they get more coal than ever before. The other workers in and about the mines should work as regularly and faithfully so that the work of the miner may not be retarded in any way. This will be especially necessary from this time forward, for your numbers may be further lessened by the draft, which will induct into the army your fair share of those not essential to industry. Those who are drafted but who are essential will be given deferred classification, and it is their patriotic duty to accept it. And it is the patriotic duty of their friends and neighbors to hold them in high regard for doing so. The only worker who deserves the condemnation of his community is the one who fails to give his best in this crisis; not the one who accepts deferred classification and works regularly and diligently to increase the coal output. A great task is to be performed. The operators and their staffs alone cannot do it, nor can the mine workers alone do it; but both parties, working hand in hand with a grim determination to rid the country of its greatest obstacle to winning the war, can do it. It is with full confidence that I call upon you to assume the burden of producing an ample supply of coal. You will, I am sure, accept this burden and will successfully carry it through, and in so doing you will be performing a service just as worthy as service in the trenches, and will win the applause and gratitude of the whole nation.

—WOODROW WILSON.

"The White House, 9 August, 1918."

#### **SULPHUR RESERVE AMPLE WHEN STORM DAMAGES LOUISIANA PLANT**

Advises to the Chemicals Division of the War Industries Board are that mining operations have been resumed in part at the plant of the Union Sulphur Company, at Sulphur, La., where considerable damage was done by the hurricane that swept over that region on August 6. Shipments of sulphur were resumed last week from the accumulated stocks and rapid progress

is being made in the work of restoring normal conditions. Considerable rebuilding will have to be done but ample material is on hand for the work.

The company carried immense reserves of sulphur above ground so that there will be no interruption in the manufacture of sulphuric acid and other necessary war materials. This reserve pile of the Union Sulphur Company measures 800 feet in length by 200 feet in width, 40 feet high, and represents about fifteen months' mining.

The plant of the Freeport Sulphur Company at Freeport, Texas, is producing its normal tonnage and has a considerable reserve above ground. While the damage to the Union Sulphur Company is unfortunate, especially at this time when sulphuric is being produced in such an enormous way, the reserve stock situation is such that there is no cause for worry. The Union Sulphur Company's operatives are working day and night in the rebuilding of their plant. The sulphur is melted in the ground by steam and hot water and forced to the surface through wells where the molten sulphur solidifies on exposure to the air. The sulphur deposit underlies a bed of quicksand through which it is impossible to drive shafts and mine in the ordinary way. The development of this project is one of the interesting mechanical and chemical achievements of the past decade and, together with the Freeport Company's developments, makes the United States by far the greatest producer of sulphur.

There are two other known deposits which can be quickly opened up in case of necessity. Work is now progressing on the development of one of these deposits.

Bulletins Nos. 241 and 243, compiled by the Jeffrey Manufacturing Company, which have just come from the press, are now ready for distribution.

Bulletin No. 241 features the 35-B, the latest type of Jeffrey shortwall coal cutter, a machine designed to meet the demand for a simple and rugged machine easily operated and controlled under all mine conditions.

Bulletin No. 243 features the Jeffrey A-5 electric rotary drill for drilling coal, slate, shale, rock, salt, clay, gypsum, soft rocks or other materials which can be penetrated with an auger bit.

In addition to a complete description of these machines and their distinctive features, the bulletins contain a number of interesting views showing them in actual operation in mines.

Users of coal mining machinery can obtain free copies of these bulletins by writing to the main office of the Jeffrey Manufacturing Company of Columbus, Ohio, or to any of their branch offices.



### PERMITS TO OPEN NEW MINES GRANTED IN CERTAIN CASES

Each application is investigated by the Mine Track Committee, and their decision is governed by the following considerations: Quality of coal, production tonnage promised at an early date, labor supply available without interfering with other operations, diffusion of cars, and ability of railroads to handle the production.

Up to this time there have been 623 applications to open bituminous mines and 10 applications to open anthracite mines. Of this number 215 bituminous applications and 9 anthracite applications have been approved. Seventy-two bituminous applications have been rejected and one has been withdrawn. The Mine Track Committee has under consideration 1 anthracite and 335 bituminous requests.

So long as the railroads are experiencing difficulty in supplying cars and in moving the loads to their destination, and so long as labor for the mines is short, the advisability of extending coal development is held by the United States Fuel Administration in a doubtful light. Only when convinced that a new operation will surely increase production is consent given for a new opening.

### DECLINE IN BITUMINOUS PRODUCTION IS CHECKED

Bituminous coal production for the week ended August 24 amounted to 12,603,000 net tons, including lignite and coal made into coke, which production exceeded the output during the corresponding week of 1917 by 1,852,000 net tons, or 17 per cent.

The estimates of production for the week by the United States Geological Survey indicate a signal recovery of output over the record of recent weeks. Compared with the record for the week of August 17, the increase amounts to 669,000 net tons, or 5.6 per cent.

The average production per working day during the week ended August 24 is estimated at 2,100,000 net tons, as against 1,989,000 net tons during the preceding week and 1,792,000 net tons during the corresponding week of 1917.

Anthracite production for the week is reported in net tons at 2,134,000, as against 1,924,000 net tons during the preceding week, an increase of 10.9 per cent. The production record for the week compares with 1,988,600 net tons during the corresponding week of 1917.

Shipments of bituminous coal during the week increased from all districts, with the exception of the district including northeast Kentucky, the high volatile and smokeless fields of West Virginia, and from the Rocky Mountain and Pacific Coast states. Increase of shipments in central Pennsylvania amounted to 8 per cent; Ohio, 11 per cent; the district including Illinois, Indiana and western Kentucky, 5 per cent.

Bituminous coal loaded on vessels at Lake ports (including vessel fuel) during the week

ended August 24 is estimated at 1,151,744 net tons, being an increase over the previous week of 3.8 per cent and over the weekly average during July and August of 11.8 per cent.

The increase of shipments to New England during the week is estimated at 10 per cent. Shipments were also increased from all harbors.

During the week of August 17 the bituminous mines produced 77.7 per cent of their present full-time output. Losses to production are distributed as follows: Car shortage, 12.4 per cent; labor shortage, including strikes, 4.1 per cent; mine disability, 4.2 per cent; no market, 0.5 per cent; all other causes, 1.1 per cent.

Poor transportation conditions caused increased losses of time by mines in Illinois, Somerset county, Pa.; New River and Winding Gulf and the high volatile districts of West Virginia and in northeast and western Kentucky. Improved operating conditions due to better supply of cars existed in western Pennsylvania, Cumberland-Piedmont district, and in southwest Virginia. Better transportation conditions existed in southern Ohio, but such improvement was offset by shortage of labor.

### Detroit Needs More Domestic Coal

A committee of industrial coal consumers for the city of Detroit has conferred with officials of the United States Fuel Administration. The Detroit representatives said that the supply of industrial fuel for Detroit was in excellent condition, but they sought additional assurances as to the supply of coal for domestic consumers.

The Detroit representatives took the position that their city must be guaranteed a satisfactory supply of coal for domestic consumption in order that the many war industries located at Detroit might not be embarrassed in maintaining a proper supply of labor. The withdrawal of a part of Detroit's anthracite coal supply, made necessary by the increased demand for anthracite in the congested Eastern territory, left the city partially dependent upon domestic sizes of bituminous coal for household heating.

While the officials of the Fuel Administration were unable to increase the allotment of anthracite to Detroit, the Detroit representatives were assured that a satisfactory supply of domestic sizes of bituminous coal would be forthcoming.

The Detroit representatives were headed by State Fuel Administrator William K. Prudden. They were Mr. Henry M. Leland, Liberty Motor Company; Mr. J. J. Crowley, Crowley Bros. Co., president, Detroit Board of Commerce; Mr. Henry Hoyt, vice-president, Great Lakes Engineering Company; Mr. W. J. Schultz, Packard Motor Company; Mr. J. E. Spencer, Studebaker Corporation; Mr. A. R. Demory, vice-president, Timken Detroit Axle Company; Mr. O. C. Hutchinson, Hupp Motor Corporation, and Mr. E. J. DuBois, Detroit Board of Commerce.



## PRICES ON SHEET AND PLATE ZINC CONTINUED TO JAN. 1

The President has approved an agreement made between the producers of sheet and plate zinc and the Price Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum base price of fourteen cents per pound f.o.b. plant for plate zinc, and fifteen cents per pound f.o.b. plant for sheet zinc, shall be continued on deliveries from September 1, 1918, to January 1, 1919, subject to the usual trade discounts and extras or differentials that were in effect February 13, 1918. These discounts and extras shall be effective on all contracts executed between February 13, 1918, to January 1, 1919. Sheet zinc shall be considered as including all gauges of one-eighth inch thickness and less and plate zinc as including all gauges thicker.

The conditions are, as formerly: First, that the producers of plate and sheet zinc will not reduce the wages now being paid; second, they will sell to the Allies, to the public, and to the Government at the same price; third, that they will take the necessary measures, under the direction of the War Industries Board, in the distribution of plate and sheet zinc to prevent it from falling into the hands of speculators who might increase the price to the public; and fourth, that they pledge themselves to exert every effort necessary to keep up the production of plate and sheet zinc so as to insure an adequate supply as long as the war lasts.

### Grade A Price

The President has approved an agreement, made between the producers of Grade A zinc and the Price-Fixing Committee of the War Industries Board (after investigations by this committee in conjunction with the Federal Trade Commission as to the cost of production) that the maximum price on Grade A zinc of twelve cents per pound f.o.b. East St. Louis shall be continued on deliveries between September 1, 1918, and January 1, 1919. The price at point of delivery is to be the East St. Louis price plus the freight from East St. Louis to point of delivery.

Among the zinc men who attended the recent meeting of the Price Fixing Committee of the War Industries Board in Washington were Messrs. P. B. Butler, of the Waco Mining Co.; C. F. Dike, of the Montreal mine; H. I. Young, of the American Zinc, Lead and Smelting Co.; D. C. Corner, of the Butte-Kansas Mining Co., and J. W. Hoffman, of the Blue Mound Mining Co., all enthusiastic members of The American Mining Congress and oper-

ating in the Joplin-Miami district. In addition to the price-fixing meeting these gentlemen met with Judge A. Scott Thompson, chairman of the Mining Congress committee on tax legislation in the offices of the Mining Congress to discuss developments and consider the proposals of Secretary McAdoo to Chairman Kitchen in so far as they affected the zinc industry.

## SCREENINGS SITUATION IN MIDDLE WEST RELIEVED

To provide a market for slack and screenings west of the Mississippi River, and to encourage the production of domestic sizes of coal at mines now hampered by large stocks of screenings, the Fuel Administration has temporarily lifted industrial restriction orders against plants in the west. Under the order plants, except breweries heretofore operating under curtailment orders located west of the Mississippi River, will be permitted until September 8, 1918, to take all of the screenings they can use or store. They will be permitted to use screenings thus stored without restriction throughout the year.

The order is designed to relieve the screenings situation in the middle Western and Western States. At the mines in Iowa, Kansas, Missouri, Oklahoma, Colorado and Wyoming screenings have been accumulating rapidly until production has been interfered with. The large percentage of screenings produced in securing domestic sizes of coal from these fields makes it imperative that the screenings be marketed if the output of domestic sizes is to be kept up.

In addition to lifting the ban on the use of screenings from mines supplying consuming territory west of the Mississippi in restricted industries, efforts will be made to increase the use of screenings in all industries.

### Coal Delivered on Tenders

Compensation is allowed mines for the service of furnishing fuel direct to the tenders of locomotives, under an order of the United States Fuel Administration.

Under the order there may be added to the applicable government mine price of coal delivered directly from mine tipples to locomotive tenders the sum of five cents per net ton, or such other sum as may be agreed upon between the operator and the railroad receiving the coal.

In case of failure to agree upon price the operator shall furnish such coal at the applicable government mine price, plus such additional sum in excess of five cents per ton as may be fixed by the Bureau of Prices of the U. S. Fuel Administration upon application of either the operator or the railroad.

### ENGINEERING EDUCATION MUST GO ON, SAYS COMMITTEE

Closely in line with the War Department's recommendations to make the draft ages 18 to 45, with provision for training of the younger men, is the report of Secretary Lane's special committee on higher education and industry, just made public, wherein the nation's need for technically trained men is defined and a specific higher education program urged.

The committee, which consisted of Fuller E. Callaway, a financier, of La Grange, Ga.; Samuel M. Felton, director-general of military railways for the War Department, and President E. A. Alderman, of the University of Virginia, seeks to show how essential it is if the Government's far-reaching military plans are to be carried out successfully, that the processes of higher education be maintained at the highest possible efficiency—especially those having to do with the future supply of men and women trained in scientific and technical subjects, including teachers in these fields.

That it is impossible to exaggerate the importance of engineering knowledge and skill, in the broadest sense, is the judgment of Secretary Lane's committee, not only directly in the conduct of military operations but indirectly in the essential war industries, including agriculture. The report says:

"The engineering problems confronting the United States are infinitely greater than those of any other of the great nations. For an average distance of more than 4,500 miles, across the continents and the seas, we must transport ail of the men, munitions and supplies which are to represent us in this great struggle.

"Furthermore, the central powers prepared themselves for this conflict over a long period of years, and by this means determined its character to their own advantage in large measure. The loss by our allies of men of highly specialized training in the early stages of the war and the difficulties in the way of recovery, leave this nation in the position of trustee of the only remaining sources of supply."

Pointing out how the War Department has already taken steps, through the establishment of the Student Army Training Corps, to utilize the higher educational institutions in training young men under 21, Secretary Lane's committee makes the following recommendations:

"The people of the United States should recognize that the maintenance of the war strength of the nation in its full power demands the utmost efforts of all existing well organized and adequately equipped colleges, universities and technical schools. This means ever-increasing and more devoted bodies of students as well as faculties.

"Young people having the requisite qual-

ifications should heed this urgent call of their country and apply themselves diligently, enthusiastically and in increasing numbers to the task of preparing for the highest service of which they are capable. Wherever practicable, young men should at the same time join the Students' Enlisted Reserve and prepare for military service in order to be ready for that call also when it comes.

"Institutions of higher education should adjust their courses, so far as possible, to immediate war needs and to the demands which must inevitably come with the establishment of peace, and should develop especially those scientific and practicable branches of study which are essential to the winning of the war, to the development of our industries and commerce, and to the accomplishment of the tasks of the civic and political life of the nation.

"Educational institutions should use every effort to make the opportunities and privileges of training for public service accessible to all suitably prepared men and women of college age. In the cases of many worthy young men and women this will require some provision for assistance in meeting payments for tuition and laboratory fees and other necessary expenses of higher technical training."

### WORK STOPPED ON POWER PLANT AT MUSCLE SHOALS

The Ordnance Department announces that the temporary suspension of work on the water power development at the Muscle Shoals nitrate plants will not in any way affect the production of nitrates at these or any of the other plants now engaged in its production.

This action was taken upon the representation of the War Industries Board and affects only the erection of the huge water power plant being built on the Tennessee River, power from which was not anticipated for four or five years. The water power development was undertaken by the War Department in line with its established policy of utilizing these nitrate plants for the benefit of agriculture after the war is over, when the water power plant would be available.

Work is progressing rapidly on the Muscle Shoals plants, one of which is about 60 per cent complete, and over 20,000 men are now employed there. Power for their operation is obtained from a steam electric station erected on the Tennessee River, and also purchased from the Alabama Power Company. This power is adequate for the operation of the nitrate plants. The water power development was projected merely to obtain cheaper power in future years.

## FUEL ADMINISTRATION WORKING HARD TO INCREASE PRODUCTION

Evans Woolen, Acting Director of the Bureau of State Organizations of the United States Fuel Administration and Federal Fuel Administrator for Indiana, addressing the conference of County Fuel Chairmen for New York State, said in part:

"We fuel administrators have to do with what the President recently spoke of as 'a grave danger.' Indeed, he went on to say of the existing scarcity of coal that it is the most serious danger which confronts the nation.

"In the presence of that fact we cannot meet otherwise than sober minded and in all humility. Yet we are stirred and are grateful, are we not, that to us has been entrusted what concerns the lives of our soldiers and the welfare of our neighbors.

"To you who, I doubt not, have gathered in such mood I bring greeting from those who labor in such mood at the Capital.

"They more than you have to do with the fundamental of our problem-production. They are not unmindful of the criticism that the Fuel Administration does everything about coal except to get more coal. Neither are they unaware that the coal in the ground is unlimited and that all the Fuel Administration difficulties would be overcome by sufficiently increased production. Be assured that Washington is at work on production. A committee, skilled in mining and devoted in patriotism, is working on the problem with imagination and initiative and vigor. However, the members of that committee, better perhaps than some of the Fuel Administration's critics, know the limitations. They know that our national activities in this time of crisis are limited not by money or credit, but by labor and material and transportation. We were asked the other day why the miners do not work in three eight-hour shifts. The answer of course was that the country has neither the miners to fill the shifts nor the equipment for the transportation of their product. Drafted miners who are essential are being given deferred classification and are being urged against their inclinations to accept it as a patriotic duty. At the mines production committees have been organized. Representatives of the management and of the workers cooperate on these committees in removing obstacles and stimulating zeal. The Railroad Administration is making its contribution to production by doing, I doubt not, everything that can reasonably be done to enlarge transportation equipment and facilities.

"In a word, production is being increased and unprecedentedly. The increase was fifty million tons of bituminous last year and will be, we hope, at least fifty millions more this year. Further, this is the only country that has increased its production since entering the war.

"But notwithstanding whatsoever increase is within the possibilities no assurance can be given against a serious coal shortage. The reason of course is that the war-made demand keeps bounding on beyond reach. Let me give a single instance. The allotment to the Navy at the beginning of the coal year was three and a half million tons. It is now estimated that the requirement for the year will be eight millions. Having in mind a multitude of such instances we do not hesitate in the assertion that the Fuel Administration's problem as of April 1, the beginning of the coal year, has been solved. It is the problem caused since April 1 by the enlarging war program that has not been solved.

"In view of this enlarging program and consequent fuel problem, there is necessity for a modification of the Fuel Administration's policy in the matter of storage. We are, as you know, well informed about storage by the reports we now have weekly from nearly one hundred thousand industries, utilities and retailers. From these reports it is evident that storage by non-preferred consumers must be checked. The Administration's policy as modified under existing conditions is based on the assumption that the hazards of winter delivery should be borne by the non-preferred consumers. Accordingly, it is being provided that coal in demand for winter storage by preferred consumers shall not be available for such storage by non-preferred consumers. You will find yourselves much engaged during the ensuing weeks in carrying out that policy.

"In conclusion permit me to remind you, as to the seriousness of our responsibility, that in dealing with coal, we are dealing with that which Lloyd George has said 'is the most terrible of enemies and the most potent of friends,' 'life for us and death for our foes.'"

## Reports Great Saving of Coal

A convincing demonstration of the actual results which can be obtained by following the principles laid down by the United States Fuel Administration for the economic use of coal in industry has been reported from the Syracuse, N. Y., plant of the Solvay Process Company.

It has been demonstrated that a saving of 10,000 tons of bituminous coal can be effected in the main boiler house of this plant within the next six months, despite the fact that an improvement in efficiency of from 72 to 85 per cent was realized in this plant a short time prior to the last inspection. It is also reported that a further saving, aggregating 15,000 tons per annum, can be accomplished by the alteration or limiting of auxiliary equipment.

The estimated economy thus effected would mean the releasing of 700 50-ton cars for other uses. The coal saved annually would give 3,500 families 10 tons each.

### CLARENCE HALL HEADS BUREAU OF MINES EXPLOSIVES DIVISION

An explosives division has been created in the Bureau of Mines, Clarence Hall has been made its chief. A biographical review of Mr. Hall follows:

Born April 10, 1875. Graded schools and High school, Washington, D. C.; technical education at Columbian University, specializing in chemistry and explosives, graduating in 1895. Chemist to the Aetna Powder Company, Chicago, Ill., 1895 to 1901. Instructor in metallurgical chemistry, Columbian University, 1901 to 1902; member of the firm Munroe, Hall and Hopkins, Chemists, Assayers and Engineers, 1903 to 1907. Explosives engineer, Technologic Branch, U. S. Geological Survey, January 1, 1907, to July 1, 1910. Engineer in charge, Explosives Section U. S. Bureau of Mines, July 1, 1910, to January 1, 1914. Since January 1, 1914, president National Chemical Manufacturing Co., Pittsburgh, Pa.

1907: Visited the foreign explosives testing stations, and secured plans and specifications of the British testing station, Woolwich, England, and the Belgium testing station, Framerie, Belgium, January 1 to April 1, 1907.

Investigated the coal mining districts of Pennsylvania, Virginia, West Virginia, Illinois, Indian Territory, and New Mexico, April 1, 1907, to December 31, 1907.

Investigated the following coal mine disasters: Whipple, W. Va., May 1, 1907; Johnson Mine, Scranton, Pa., June 18, 1907; Naomi, Pa., December 1, 1907; Mononogah, West Va., December 6, 1907; Darr Mine, Darr, Pa., December 19, 1907.

Commenced inspections and tests of all purchases of explosives for the Isthmian Canal Commission, August 1, 1907.

1908: Investigated coal mine disaster, Hawks Nest, W. Va., January 30, 1908.

Supervised construction of galleries and apparatus at Pittsburgh, Pa., for the U. S. Bureau of Mines Experiment Station.

Commenced active testing of explosives, September 1, 1908.

Investigated the coal mine disaster, Mariana, Pa., November 28, 1908.

1909 to 1914: General Supervision of the testing of explosives at the U. S. Bureau of Mines Experiment Station and in the field.

Investigated the coal mine disaster, Ernest, Pa., February 5, 1910.

Investigated quarry disaster, Nazareth, Pa., February 5, 1910.

Investigated quarry disaster, Belwood, Ill., December 10, 1912.

Investigated explosion, 600,000 pounds dynamite on the S. S. Alum Chine, anchored in the Patapsco River, Baltimore, Md., March 7, 1913.

Investigated explosion of dynamite factory, New Castle, Pa., March 17, 1913.

### PUBLICATIONS AND PAPERS

"Proposed Governmental Tests of Explosives for use in Coal Mines." A paper read at the summer meeting of the Coal Mining Institute of America, June 11, 1907, Pittsburgh, Pa. Published in the Proceedings of this Institute 1907, in "Mines and Minerals," November, 1907, and "Engineering and Mining Journal," June 22, 1907.

"Statistics Relating to Mine Accidents." A paper read at the winter meeting of the Coal Mining Institute of America, December 10, 1907, Pittsburgh, Pa. Published in the Proceedings of this Institute, 1907.

Bulletin No. 333, United States Geological Survey, "Coal Mine Accidents." Their Causes and Prevention." December, 1907.

"Waste of Life in American Coal Mines." Published in "Engineering Magazine," February, 1908.

"Governmental Investigations of Mine Accidents." A paper read at the first meeting of the Mine Inspectors Institute of the United States of America, June, 1908, Indianapolis, Indiana. Published in the Proceedings of this Institute, 1908.

"The Equipment of the United States Explosives Testing Station and Preliminary Results of Tests." A paper read at the summer meeting of the West Virginia Coal Mining Institute, June, 1909, Elkins, W. Va. Published in the Proceedings of this Institute, 1909, and "Fuel," July, 1909.

Bulletin 413, United States Geological Survey, "A Primer on Explosives for Coal Miners." December, 1909.

"Decomposition Products of Moving Picture Film." Published in the Nickelodion," February, 1910, and "Insurance Engineering," March, 1910.

"Preliminary Results of Tests with Explosives in the Field." A paper read in the annual meeting of the Mine Inspectors Institute of the United States of America, June, 1910, Chicago, Illinois. Published in the Proceedings of this Institute, 1910.

Miner's Circular No. 2, U. S. Bureau of Mines. "Permissible Explosives Tested Prior to January 1, 1911, and precautions to be taken in their use."

Bulletin No. 17, U. S. Bureau of Mines, "A Primer on Explosives for Coal Miners." 61 pages, 10 plates.

Technical Paper 7. "Investigations of Fuse and Miner's Squibs." 1911. 19 pages.

"Explosives Used in Engineering and Mining Operations." A paper read at the Washington meeting of the American Institute of Chemical Engineers, December 20, 1911. Published in the Proceedings of this Institute.

Bulletin No. 10, U. S. Bureau of Mines, "The Use of Permissible Explosives." December, 1912. 34 pages, 5 plates.

Bulletin No. 15, U. S. Bureau of Mines, "Investigations of Explosives used in Coal Mines." 1912. 197 pages, 7 plates.

Miner's Circular No. 6, U. S. Bureau of Mines, "Permissible Explosives Tested Prior to January 1, 1912, and precautions to be taken in their use." 1912. 20 pages.

Technical Paper 17, U. S. Bureau of Mines, "The Effect of Steaming in the Efficiency of Explosives." 1912. 20 pages. Technical Paper 18, U. S. Bureau of Mines, "Magazines and Thaw Houses for Explosives." 1912. 34 pages. 1 plate.

Bulletin No. 48, U. S. Bureau of Mines, "The Selection of Explosives Used in Engineering and Mining Operations." 1913. 50 pages, 3 plates.

Bulletin No. 59, U. S. Bureau of Mines, "Investigation of Detonators and Electric Detonators." 1913. 73 pages, 7 plates, 5 figures.

Bulletin No. 66, U. S. Bureau of Mines, "Tests of Permissible Explosives." 1913. 313 pages, 1 plate, 6 figures.

Technical Paper No. 52, U. S. Bureau of Mines, "Permissible Explosives Tested Prior to March 1, 1913." 11 pages.

"The Use of Fuse and Detonators in Wet Blasting Operations." Published in Engineering Magazine, May, 1914.

Bulletin No. 80, U. S. Bureau of Mines, "Primer on Explosives for Metal Miners and Quarrymen." January, 1915.

Technical Paper No. 71, U. S. Bureau of Mines, "Permissible Explosives Tested Prior to January 1, 1914." 10 pages.

Bulletin No. 82, International Conference of Mine Experiment Stations, 1914.

#### **BONUSES TO WORKMEN ARE DENOUNCED BY GARFIELD**

Speaking to the officers and district representatives of the United Mine Workers, U. S. Fuel Administrator Garfield said, concerning the proposal that wages be raised at this time to meet the bonuses paid by the operators:

"Bonuses are an evil and must be stopped. I am already acting upon that question. Concerning wages, the Government is at present investigating the cost of living and wage conditions throughout the country. This will include, of course, conditions in the mining fields. I shall do all in my power to see that the commission investigating that subject is put in full possession of the facts concerning mine workers and be governed by its findings.

"But the proposal to consider an advance of mine wages by itself raises a wholly different question. Speaking in your behalf and at your request, I promised the President of the United States last October that no further increases in wages would be asked for during the period of the war. I cannot and will not break that promise."

#### **Recognizes Need of Gold Production**

The Priorities Board of the War Industries Board, after carefully considering the matter of gold production, has adopted the following resolution:

"Be it Resolved by the Priorities Board that gold mining is an essential war industry, and the powers of this board will be so exercised as to accord to such industry preferential treatment in the supply not only of tools, machinery and equipment, but in transportation service, fuel supply and labor supply."

#### **Alaska Chapter Elects Officers**

At the regular annual meeting of the Tanana Valley Miners' Association, held at the experiment station of the Bureau of Mines, July 3, 1918, the following officers were elected for the ensuing year:

Board of directors—J. F. Zimmerman, John A. Davis, Ben Thompson, Albert Johnson, James A. Haney, G. A. McQuarrie, John Gross.

Governor—John A. Davis.  
Vice-governors—Ben Thompson, G. A. McQuarrie, J. A. Haney.

Treasurer—J. F. Zimmerman.  
Secretary—James Trail.  
Executive committee—G. A. McQuarrie, John A. Davis, John Gross.

The meeting listened to an interesting discussion of the Kantishna mining district by John Gross, metallurgist, of the experiment station, and James A. Haney, who has been prospecting in that region.

An adjournment was taken until the first week in October. About twenty members were present.

Very truly yours,

PAUL HOPKINS,  
Acting Secretary,  
Tanana Valley Miners' Association.

#### **Claim Surplus of Tank Cars**

Director General McAdoo has received a report indicating that there was no change in the transportation condition of petroleum products. Surplus of tank cars in the mid-continent and Texas-Louisiana fields continues to remain in a condition whereby all demands for equipment can be promptly met. The daily movement from these two fields averages about 1,300 cars per day. This may be increased slightly during the next few weeks on account of the large demands of the west and northwest for agricultural activities, but no abnormal movement from the western field to the eastern seaboard is anticipated for the immediate future.



## COAL MINING MAY BE AS HAZARDOUS AS WAR

An army of three-quarters of a million men, with no divisional or corps numbers, with no insignia except that of the man who labors and working far from the fanfare of trumpets, is the subterranean army of men who toil in the darkness of the underground to produce the coal that supplies the vital necessities of the other army now fighting the Huns.

That the coal miners constitute an army as truly as the men who march to the front is being attested daily by the enthusiastic reports that reach the Bureau of Mines of the Department of the Interior of records smashed in the production of coal. From all parts of the country, from isolated villages in places where one would imagine the war spirit was slow in penetrating, come these reports that miners have gladly given up their holidays in order that there should not be any slowing up of the great war machine that is destined to finally crush the Hun. These reports from operators not only give the facts of greater production, but generally add a virile comment upon what their organizations intend to do in the near future to help win the war. The patriotic spirit that pervades the operators is the same in the superintendents, the foremen and the men themselves. The lone miner in his working place, tearing the coal from its resting place, knows that more coal means more guns, more ships, more munitions, and that these mean victory and the saving of the lives of their brothers who are fighting across the seas.

Just recently the Bureau of Mines sent one of its representatives into the mines of Michigan, Tennessee and Ohio to investigate the pyrite which may be needed in the manufacture of sulphuric acid, the pyrite being the sulphur found in the coal. It is not known as yet whether it will be necessary to use these sulphur balls, the bureau making the investigation as a measure of preparedness. The investigator, however, found that the operators and the miners were ready to mine the pyrite just as soon as it was demanded.

The message brought back to the bureau by the investigator was that the outstanding feature of his trip was the absolute patriotism of the men and the general anxiety to help the Government in any way possible. The investigator found that the old socialistic chalk slogans on the walls of many mines has given way to "Buy Liberty Bonds" and many other references to winning the war. One of the most familiar of the signs in a number of mines to "Buy Liberty Bonds" and many other references every electric motor seen in the mines carries a miniature American flag, bringing continually to the miners that the war is on and giving him the inspiration to greater effort.

And the miner is risking his life as well as the soldier boys at the front. In the year 1917,

the last for which statistics are available, 2,696 miners gave up their lives while digging coal to win the war. Unfortunately, the Government does not tabulate the casualties of the mines as it does of the soldiers. If the number of injuries could be shown, they would indicate that mining, perhaps, is as hazardous as war. Yet the miner goes about his work with the same enthusiasm and the same fearlessness as the boys "over there," and is surely doing his part toward winning the war.

## PERSONALS

F. P. Wright and Mrs. Wright, of Bevier, Ky., are spending a few weeks at the capital.

Walter Fitch, President, Chief Consolidated Mining Company, Eureka, Utah, was in Washington for several days last month. He made the offices of The American Mining Congress his headquarters.

Mr. and Mrs. A. G. Mackenzie have returned to Salt Lake after spending several weeks in Washington and New York.

J. F. Callbreath, secretary of The American Mining Congress, left Washington early in August for an extended western trip. He attended the conference of gold operators at Reno, August 12-15.

John T. Burns, western secretary of The American Mining Congress, is temporarily at the Washington office. He expects to remain at the Capital until early October, and will be very glad to have the western members of the organization call upon him for any service he may render.

Victor Rakowsky, of Joplin, Mo., was in Washington early in August.

Alexander Blair, Jr., is at the officers' training camp, Camp Humphries, Va. Mr. Blair has been associated with his father at the Pittsburgh Coal Company, Baskett, Ky.

Daniel Howard was in Washington for several days during August. "Uncle Dan" is working very hard to secure some relief in the transportation situation for West Virginia.

Dr. Arthur K. Adams recently returned from Chile, where he has been connected with the Andes Copper Company. After spending a short time at Spencer, Mass., he entered the officers' training school Camp Humphries, Va.

James S. Douglas, who for the past year has been in France with the American Red Cross, is in Arizona for a short time.

C. F. Dyke, Joplin, Mo., attended the meeting of the zinc producers in Washington the latter part of August.

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Equitable Powder Co., East Alton, Ill.  
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General Electric Co., Schenectady, N. Y.

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Electric Service Supplies Co., 17th & Cambria Sts., Philadelphia, Pa.

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Jeffrey Mfg. Co., Columbus, Ohio  
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General Briquetting Co., 25 Broad Street, New York City  
Jeffrey Mfg. Co., Columbus, Ohio

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Cross Engineering Co., Carbondale, Pa.  
Jeffrey Mfg. Co., Columbus, Ohio  
Machinery Warehouse & Sales Co., Old Colony Bldg., Chicago.

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Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
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Phillips Mine & Mill Supply Co., Pittsburgh, Pa.

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Hockensmith Mine Car Co., Penn Station, Pa.  
Machinery Warehouse & Sales Co., Old Colony Bldg., Chicago.  
Phillips Mine & Mill Supply Co., Pittsburgh, Pa.

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The Lunkenheimer Co., Cincinnati, Ohio

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Morse Chain Co., Ithaca, N. Y.

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Indiana Laboratories Co., Hammond, Ind.  
Ledoux & Co., A. R., Inc., 99 John Street, New York City  
E. J. Longyear Co., Minneapolis, Minn.  
Lucius Pitkin, Inc., 47 Fulton Street, New York City  
Richards, W. J., Denver, Colo.  
Western Chemical Co., Denver, Colo.

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Ohio Brass Co., Mansfield, Ohio.  
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Electric Service Supplies Co., 17th & Cambria Sts., Philadelphia, Pa.

### CLUTCHES

Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.

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Ohio Brass Co., Mansfield, Ohio

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Electric Service Supplies Co., 17th & Cambria Sts., Philadelphia, Pa.

## COMPANY STORES (Coupons)

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Machinery Warehouse & Sales Co., Old Colony Bldg., Chicago.  
Standard Scale & Supply Co., The, 1631 Liberty Avenue, Pittsburgh, Pa.  
Randle Machinery Co., The, Cincinnati, Ohio  
Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## CONCENTRATORS (Table)

Allis-Chalmers Mfg. Co., Milwaukee, Wis.

## CONCRETE MIXERS

Standard Scale & Supply Co., 1631 Liberty Avenue, Pittsburgh, Pa.

## CONDENSERS

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Worthington Pump & Machinery Corp., 115 Broadway, New York City

## CONTROLLERS

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Electric Service Supplies Co., 17th & Cambria Sts., Philadelphia, Pa.

## CONVEYORS, BELT

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
Stephens-Adamson Mfg. Co., Aurora, Ill.

## CONVEYORS, CHAIN FLIGHT

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
Wilnot Engineering Co., Hazleton, Pa.

## CONVEYORS, COAL

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio

## CONVEYORS AND ELEVATORS

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Jeffrey Mfg. Co., Columbus, Ohio

## CONVEYORS, PAN OR APRON

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio

## CONVEYORS, SCREW

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio

## COPPER LEECHING

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## CORE DRILLING

E. J. Longyear Co., Minneapolis, Minn.

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Nicholson, W. H., & Co., Wilkes-Barre, Pa.

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Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.  
Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
Machinery Warehouse & Sales Co., Old Colony Bldg., Chicago.  
Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## CRUSHING PLANTS, COKE

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio

## CRUSHERS

Allis-Chalmers Mfg. Co., Milwaukee, Wis.  
Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
Machinery Warehouse & Sales Co., Old Colony Bldg., Chicago.  
Worthington Pump & Machinery Corp., 115 Broadway, New York City.

## CRANES

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio

## CROSS-OVER DUMPS

Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
Phillips Mine & Mill Supply Co., Pittsburgh, Pa.

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## CYANIDING

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Jeffrey Mfg. Co., 958 N. Fourth Street, Columbus, Ohio  
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## DYNAMOS

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Randle Machinery Co., The, Cincinnati, Ohio



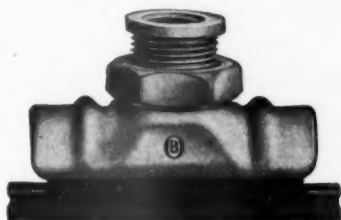
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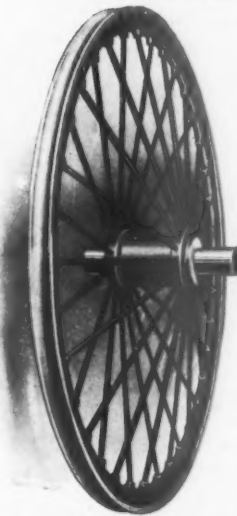
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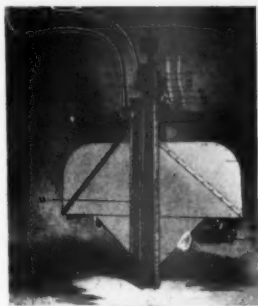
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General Electric Co., Schenectady, N. Y.

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Randle Machinery Co., The, Cincinnati, Ohio  
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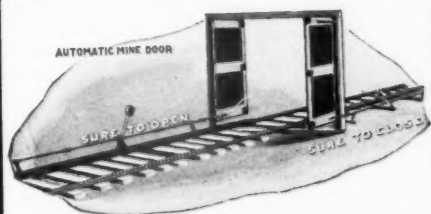
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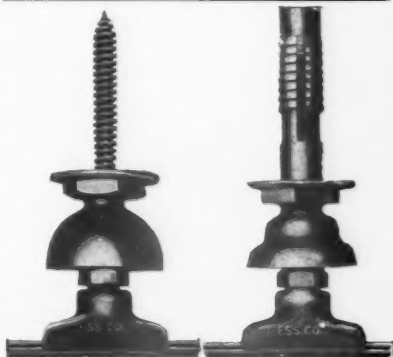
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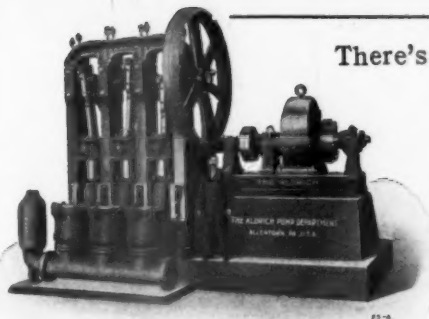
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Koering Cyaniding Process Co., Salt Lake, Utah  
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Worthington Pump & Machinery Corp., 115 Broadway, New York City

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Randle Machinery Co., The, Cincinnati, Ohio  
Standard Scale & Supply Co., The, 1631 Liberty Avenue, Pittsburgh, Pa.  
Worthington Pump & Machinery Corp., 115 Broadway, N. Y., N. Y.

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Worthington Pump & Machinery Corp., 115 Broadway, N. Y., N. Y.

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## PUMPS, POWER

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Cleveland Belting & Machinery Co., Cleveland, Ohio  
Connellsville Mfg. & Mine Supply Co., Connellsville, Pa.  
General Electric Co., Schenectady, N. Y.  
Randle Machinery Co., The, Cincinnati, Ohio  
Standard Scale & Supply Co., The, 1631 Liberty Avenue, Pittsburgh, Pa.  
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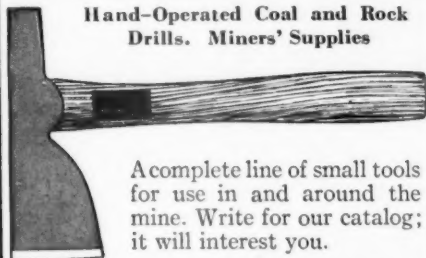
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**Third**—The protection of mining investors against fraud and misrepresentation; the stimulation of investment in real mining and to demonstrate that mining is a business and not a gamble.

**Fourth**—Uniformity in state laws governing mining operations carried on under like conditions.

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**Sixth**—A solution of the economic problems underlying the coal industry

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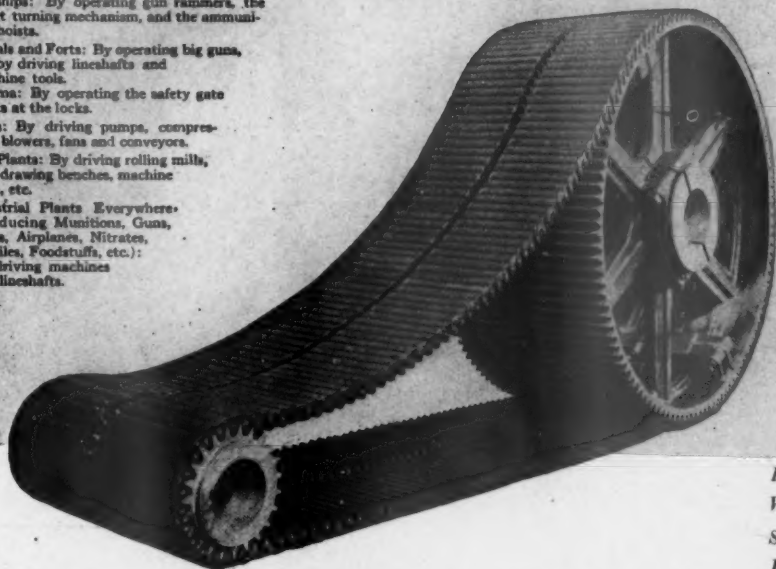
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